

COUNTRY EXPOSURE MODEL

Review main statistic of a exposure model and create summaries for a given Country.

```
/home/risk/venvs/py38w/lib/python3.8/site-packages/geopandas/_compat.py:111: UserWarning: The Shapely GEOS version (3.9.1-CAPI-1.14.2) is incompatible with the GEOS version PyGEOS was compiled with (3.10.1-CAPI-1.16.0). Conversions between both will be slow.
  warnings.warn(
```

```
# Parameters
country = "Albania"
```

Exposure files:
Exposure_Com_Albania.csv
Exposure_Ind_Albania.csv
Exposure_Res_Albania.csv

Sanity checks and formats

Exposure at National level

Summary by occupancy type

	OCCUPANTS	BUILDINGS	COST_USD	BUILDINGS_%	COST_USD_%
OCCUPANCY					
Res	2,854.0K	598.3K	\$26,784.3M	92.95%	77.36%
Ind	590.8K	15.9K	\$2,908.8M	2.47%	8.40%
Com	1,141.6K	29.4K	\$4,930.7M	4.57%	14.24%

Other metrics to consider

	AREA_SQM	COST_BUILDING_USD	AVG_BUILDING_AREA_SQM	AVG_COST_PER_AREA_USD
OCCUPANCY				
Total	53,160.8K	\$25,056.3M	83	\$651
Res	48,041.5K	\$21,427.5M	80	\$558
Ind	2,006.7K	\$1,163.5M	126	\$1,450
Com	3,112.7K	\$2,465.4M	106	\$1,584

Exposure summary at Admin level 1

	COST_USD	BUILDINGS	OCCUPANTS	COST_USD_%	BUILDINGS_%	OCCUPANTS_%
NAME_1						
Tirane	\$8,775.1M	120.5K	1,312.7K	25.34%	18.72%	28.62%
Fier	\$4,395.7M	84.1K	492.8K	12.70%	13.06%	10.74%
Elbasan	\$3,495.2M	69.4K	479.6K	10.09%	10.79%	10.46%
Durres	\$3,476.2M	60.0K	454.3K	10.04%	9.32%	9.91%
Vlore	\$2,987.5M	54.8K	289.5K	8.63%	8.52%	6.31%
Korce	\$2,624.3M	55.8K	340.7K	7.58%	8.67%	7.43%
Shkoder	\$2,333.9M	50.9K	349.2K	6.74%	7.90%	7.61%
Berat	\$1,687.6M	38.6K	215.1K	4.87%	5.99%	4.69%
Lezhe	\$1,517.0M	33.0K	213.9K	4.38%	5.12%	4.66%
Gjirokaster	\$1,300.9M	27.6K	118.4K	3.76%	4.29%	2.58%
Diber	\$1,283.1M	31.6K	198.5K	3.71%	4.91%	4.33%
Kukes	\$747.4M	17.3K	121.7K	2.16%	2.69%	2.65%

Exposure by simplified taxonomy

Adding `MACRO_TAXO` column						
	COST_USD	BUILDINGS	OCCUPANTS	COST_USD_%	BUILDINGS_%	OCCUPANTS_%
MACRO_TAXO						
RC	\$12,610.0M	55.5K	1,507.6K	36.42%	8.62%	32.87%
MCF	\$11,889.9M	303.2K	1,555.5K	34.34%	47.10%	33.91%
MUR	\$8,946.1M	273.5K	1,294.3K	25.84%	42.49%	28.22%
S	\$1,029.7M	5.7K	212.7K	2.97%	0.89%	4.64%
W	\$148.1M	5.7K	16.4K	0.43%	0.89%	0.36%

Exposure by taxonomy

Showing only taxonomies that represent90% of the total `COST_USD`

		COST_USD	BUILDINGS	COST_USD_%	BUILDINGS_%
MACRO_TAXO		TAXONOMY			
MCF	MCF/LWAL+CDL/H:1/RES	\$7,520.7M	260,876	24.25%	43.20%
MUR	MUR/LWAL+CDN/H:1/RES	\$6,328.8M	243,143	20.41%	40.27%
MCF	MCF/LWAL+CDL/H:1/COM	\$1,924.9M	12,900	6.21%	2.14%
MUR	MUR/LWAL+CDN/H:1/COM	\$1,476.6M	12,229	4.76%	2.03%
RC	CR/LFINF+CDM+LFC:9.0/HBET:3-5/RES	\$1,453.1M	4,365	4.69%	0.72%
	CR+PC/LWAL+CDM+LFC:9.0/HBET:3-5/RES	\$1,352.9M	4,064	4.36%	0.67%
	CR+PC/LWAL+CDM+LFC:9.0/HBET:6-/RES	\$1,283.9M	2,042	4.14%	0.34%
	CR+PC/LWAL+CDM+LFC:4.0/HBET:6-/RES	\$1,049.3M	1,562	3.38%	0.26%
MCF	MCF/LWAL+CDL/H:1/IND	\$1,021.1M	5,415	3.29%	0.90%
RC	CR/LFINF+CDM+LFC:4.0/HBET:3-5/RES	\$818.3M	2,315	2.64%	0.38%
	CR+PC/LWAL+CDM+LFC:4.0/HBET:3-5/RES	\$793.9M	2,171	2.56%	0.36%
	CR/LFINF+CDM+LFC:9.0/HBET:3-5/SOS/RES	\$782.9M	2,352	2.52%	0.39%
S	S/LFM+CDM/H:1/IND	\$572.0M	3,185	1.84%	0.53%
MCF	MCF/LWAL+CDL/H:2/RES	\$548.1M	19,988	1.77%	3.31%
RC	CR/LDUAL+CDM+LFC:9.0/HBET:6-/SOS/RES	\$527.2M	839	1.70%	0.14%
MCF	MCF/LWAL+CDL/HBET:3-5/RES	\$505.6M	1,447	1.63%	0.24%
RC	CR/LFINF+CDM+LFC:4.0/HBET:3-5/SOS/RES	\$481.0M	1,266	1.55%	0.21%
	CR/LFINF+CDL+LFC:9.0/HBET:3-5/RES	\$469.7M	1,411	1.51%	0.23%
S	S+SL/LFM+CDM/H:1/IND	\$457.6M	2,548	1.48%	0.42%
RC	CR+PC/LFM+CDM/H:1/IND	\$450.5M	2,389	1.45%	0.40%
	CR/LDUAL+CDM+LFC:4.0/HBET:6-/SOS/RES	\$433.5M	596	1.40%	0.10%
MUR	MUR/LWAL+CDN/H:2/IND	\$407.6M	2,389	1.31%	0.40%
	MUR/LWAL+CDN/H:2/RES	\$356.6M	14,362	1.15%	2.38%