

# 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 = "Cyprus"
```

Exposure files:  
Exposure\_Com\_Cyprus.csv  
Exposure\_Ind\_Cyprus.csv  
Exposure\_Res\_Cyprus.csv

## Sanity checks and formats

## Exposure at National level

### Summary by occupancy type

	OCCUPANTS	BUILDINGS	COST_USD	BUILDINGS_%	COST_USD_%
OCCUPANCY					
Res	875.9K	264.3K	\$65.4B	92.22%	63.44%
Ind	261.7K	6.8K	\$22.4B	2.38%	21.72%
Com	340.8K	15.5K	\$15.3B	5.40%	14.84%

### Other metrics to consider

	AREA_SQM	COST_BUILDING_USD	AVG_BUILDING_AREA_SQM	AVG_COST_PER_AREA_USD
OCCUPANCY				
Total	58,440.8K	\$69.0B	204	\$1,765
Res	48,774.9K	\$52.3B	185	\$1,341
Ind	6,127.3K	\$9.0B	897	\$3,656
Com	3,538.7K	\$7.7B	229	\$4,326

## Exposure summary at Admin level 1

	COST_USD	BUILDINGS	OCCUPANTS	COST_USD_%	BUILDINGS_%	OCCUPANTS_%
NAME_1						
Lefkosia	\$37,207.8M	93.1K	591.0K	36.08%	32.48%	39.97%
Lemesos	\$23,006.8M	71.8K	404.2K	22.31%	25.05%	27.34%
Larnaka	\$18,920.1M	46.7K	230.5K	18.35%	16.28%	15.59%
Paphos	\$13,317.3M	44.3K	147.5K	12.91%	15.45%	9.97%
Ammochostos	\$7,359.4M	22.2K	75.3K	7.14%	7.74%	5.09%
Akrotiri and Dhekelia	\$3,321.2M	8.6K	30.0K	3.22%	3.00%	2.03%

## Exposure by simplified taxonomy

	COST_USD	BUILDINGS	OCCUPANTS	COST_USD_%	BUILDINGS_%	OCCUPANTS_%
MACRO_TAXO						
RC	\$71,235.2M	192,434	1,021.7K	69.07%	67.14%	69.11%
MUR	\$15,913.4M	81,947	197.6K	15.43%	28.59%	13.37%
S	\$15,266.7M	8,094	250.0K	14.80%	2.82%	16.91%
ADO/E	\$717.2M	4,138	9.1K	0.70%	1.44%	0.61%

## Exposure by taxonomy

Showing only taxonomies that represent 90% of the total `COST\_USD`

		COST_USD	BUILDINGS	COST_USD_%	BUILDINGS_%
MACRO_TAXO	TAXONOMY				
RC	CR/LFINF+CDN/H:2/RES	\$15,616.5M	50,491	16.97%	19.15%
MUR	MUR/LWAL+CDN/H:1/RES	\$11,696.9M	68,162	12.71%	25.86%
RC	CR/LFINF+CDN/H:1/RES	\$10,798.4M	56,604	11.73%	21.47%
S	S+SL/LFM+CDM/H:1/IND	\$10,479.9M	3,277	11.39%	1.24%
	CR/LFINF+CDM+LFC:12.0/H:2/RES	\$10,346.4M	33,548	11.24%	12.73%
RC	CR/LFINF+CDM/H:1/IND	\$9,169.9M	2,731	9.96%	1.04%
	CR/LFINF+CDN/H:2/SOS/RES	\$4,622.0M	14,643	5.02%	5.55%
MUR	MUR/LWAL+CDN/H:2/RES	\$3,714.1M	12,799	4.04%	4.85%
S	S/LFBR+CDM/H:2/COM	\$2,795.7M	3,711	3.04%	1.41%
	CR/LFINF+CDM+LFC:12.0/HBET:3-5/COM	\$2,777.5M	1,183	3.02%	0.45%
RC	CR/LDUAL+CDN/H:2/SOS/RES	\$2,006.9M	6,901	2.18%	2.62%
	CR+PC/LFM+CDN/H:1/IND	\$1,604.7M	478	1.74%	0.18%
S	S/LFINF+CDM/HBET:3-5/COM	\$1,579.2M	930	1.72%	0.35%
	CR/LDUAL+CDN/HBET:3-5/SOS/RES	\$1,285.0M	3,781	1.40%	1.43%
RC	CR/LFINF+CDN/HBET:3-5/RES	\$1,226.1M	3,434	1.33%	1.30%
	CR/LFINF+CDM+LFC:9.0/HBET:3-5/COM	\$1,164.2M	612	1.26%	0.23%
	CR/LFINF+CDM/HBET:3-5/IND	\$1,146.2M	341	1.25%	0.13%

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