

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 = "Turks_and_Caicos_Islands"
```

Exposure files:
Exposure_Com_Turks_and_Caicos_Islands.csv
Exposure_Ind_Turks_and_Caicos_Islands.csv
Exposure_Res_Turks_and_Caicos_Islands.csv

Sanity checks and formats

Turks_and_Caicos_Islands
Exposure/Exposure/Exposure_Com_Turks_and_Caicos_Islands.csv
Exposure/Exposure/Exposure_Ind_Turks_and_Caicos_Islands.csv
Exposure/Exposure/Exposure_Res_Turks_and_Caicos_Islands.csv
Occupants / Dwellings = 2.9
No refence household size data available
Population (exposure / UN_2021) = 0.88
Exposure models OK

Exposure at National level

Summary by occupancy type

	OCCUPANTS	BUILDINGS	COST_USD	BUILDINGS_%	COST_USD_%
OCCUPANCY					
Res	34.6K	11,256	\$1,491.8M	92.25%	83.33%
Ind	0.0K	266	\$55.3M	2.18%	3.09%
Com	0.0K	680	\$243.1M	5.57%	13.58%

Other metrics to consider

	AREA_SQM	COST_BUILDING_USD	AVG_BUILDING_AREA_SQM	AVG_COST_PER_AREA_USD
OCCUPANCY				
Total	3,908.0K	\$1,180.6M	320	\$458
Res	3,620.3K	\$1,002.3M	322	\$412
Ind	108.2K	\$27.8M	407	\$511
Com	179.5K	\$150.5M	264	\$1,355

Exposure summary at Admin level 1

	COST_USD	BUILDINGS	OCCUPANTS	COST_USD_%	BUILDINGS_%	OCCUPANTS_%
NAME_1						
Turks and Caicos Islands	\$1,790.2M	12.2K	34.6K	100.00%	100.00%	100.00%

Exposure by simplified taxonomy

Adding `MACRO_TAX0` column

	COST_USD	BUILDINGS	OCCUPANTS	COST_USD_%	BUILDINGS_%	OCCUPANTS_%
MACRO_TAXO						
MR	\$586.4M	4,706	12,708	32.76%	38.57%	36.70%
W	\$522.0M	3,574	10,691	29.16%	29.29%	30.87%
RC	\$455.2M	2,202	7,019	25.43%	18.05%	20.27%
OT	\$165.0M	1,323	4,213	9.22%	10.84%	12.17%
S	\$51.2M	317	0	2.86%	2.60%	0.00%
MCF	\$10.3M	80	0	0.58%	0.66%	0.00%

Exposure by taxonomy

Showing only taxonomies that represent 90% of the total `COST_USD`

		COST_USD	BUILDINGS	COST_USD_%	BUILDINGS_%
MACRO_TAXO TAXONOMY					
MR	MR/LWAL+CDL+DUL/HEX:1/RES	\$586.4M	4,706	36.93%	41.24%
W	W+WLI/LWAL+CDM+DUM/HEX:1/RES	\$407.1M	3,268	25.64%	28.64%
RC	CR/LFINF+CDL+DUL/HEX:2/RES	\$270.9M	1,673	17.06%	14.66%
OT	UNK/UNK+DNO/HEX:1/RES	\$165.0M	1,323	10.39%	11.59%
W	W+WLI/LWAL+CDM+DUM/HEX:2/COM	\$105.5M	231	6.65%	2.02%
RC	CR/LFINF+CDM+DUM/HEX:3/RES	\$53.0M	211	3.34%	1.85%

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