

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 = "Aruba"
```

Exposure files:
Exposure_Com_Aruba.csv
Exposure_Ind_Aruba.csv
Exposure_Res_Aruba.csv

Sanity checks and formats

Aruba
Exposure/Exposure/Exposure_Com_Aruba.csv
Exposure/Exposure/Exposure_Ind_Aruba.csv
Exposure/Exposure/Exposure_Res_Aruba.csv
Occupants / Dwellings = 4.1
No refence household size data available
Population (exposure / UN_2021) = 0.98
Exposure models OK

Exposure at National level

Summary by occupancy type

	OCCUPANTS	BUILDINGS	COST_USD	BUILDINGS_%	COST_USD_%
OCCUPANCY					
Res	104.6K	20,947	\$3,326.8M	91.63%	59.46%
Ind	0.0K	652	\$418.1M	2.85%	7.47%
Com	0.0K	1,261	\$1,850.1M	5.52%	33.07%

Other metrics to consider

	AREA_SQM	COST_BUILDING_USD	AVG_BUILDING_AREA_SQM	AVG_COST_PER_AREA_USD
OCCUPANCY				
Total	12,412.2K	\$3,358.5M	543	\$451
Res	10,715.9K	\$2,030.2M	512	\$310
Ind	1,073.1K	\$204.1M	1,646	\$390
Com	623.3K	\$1,124.2M	494	\$2,968

Exposure summary at Admin level 1

	COST_USD	BUILDINGS	OCCUPANTS	COST_USD_%	BUILDINGS_%	OCCUPANTS_%
NAME_1						
Aruba	\$5.6B	22.9K	104.6K	100.00%	100.00%	100.00%

Exposure by simplified taxonomy

Adding `MACRO_TAXO` column

	COST_USD	BUILDINGS	OCCUPANTS	COST_USD_%	BUILDINGS_%	OCCUPANTS_%
MACRO_TAXO						
W	\$3,381.3M	19,561	98,693	60.43%	85.57%	94.32%
RC	\$1,650.4M	1,198	3,552	29.50%	5.24%	3.39%
S	\$326.5M	641	0	5.83%	2.80%	0.00%
MR	\$206.3M	1,297	2,391	3.69%	5.67%	2.29%
MCF	\$30.6M	163	0	0.55%	0.71%	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				
W	W+WLI/LWAL+CDL+DUL/HEX:2/RES	\$2,877.7M	18,096	58.41%	86.03%
RC	CR/LFINF+CDM+DUM/HEX:2/COM	\$928.0M	76	18.84%	0.36%
	CR/LFINF+CDM+DUM/HEX:4/COM	\$411.1M	101	8.34%	0.48%
	W+WLI/LWAL+CDM+DUM/HEX:2/COM	\$350.7M	504	7.12%	2.40%
MR	MR/LWAL+CDL+DUL/HEX:1/RES	\$206.3M	1,297	4.19%	6.17%
W	W+WLI/LWAL+CDL+DUL/HEX:1/RES	\$152.9M	961	3.10%	4.57%

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