

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 = "Martinique"
```

Exposure files:
Exposure_Com_Martinique.csv
Exposure_Ind_Martinique.csv
Exposure_Res_Martinique.csv

Sanity checks and formats

Martinique
Exposure/Exposure/Exposure_Com_Martinique.csv
Exposure/Exposure/Exposure_Ind_Martinique.csv
Exposure/Exposure/Exposure_Res_Martinique.csv
Occupants / Dwellings = 3.7
No reference household size data available
Population (exposure / UN_2021) = 1.03
Exposure models OK

Exposure at National level

Summary by occupancy type

	OCCUPANTS	BUILDINGS	COST_USD	BUILDINGS_%	COST_USD_%
OCCUPANCY					
Res	384.4K	99,967	\$8,240.6M	94.84%	72.36%
Ind	0.0K	1,177	\$248.2M	1.12%	2.18%
Com	0.0K	4,260	\$2,898.9M	4.04%	25.46%

Other metrics to consider

	AREA_SQM	COST_BUILDING_USD	AVG_BUILDING_AREA_SQM	AVG_COST_PER_AREA_USD
OCCUPANCY				
Total	28,365.6K	\$7,649.3M	269	\$401
Res	25,470.6K	\$5,776.7M	255	\$324
Ind	568.1K	\$124.2M	483	\$437
Com	2,326.9K	\$1,748.4M	546	\$1,246

Exposure summary at Admin level 1

	COST_USD	BUILDINGS	OCCUPANTS	COST_USD_%	BUILDINGS_%	OCCUPANTS_%
NAME_1						
Le Marin	\$4,441.8M	40.9K	148.9K	39.00%	38.79%	38.73%
Le Trinité	\$2,951.8M	27.5K	100.1K	25.92%	26.10%	26.03%
Fort-de-France	\$2,240.7M	20.8K	76.1K	19.68%	19.71%	19.81%
Saint-Pierre	\$1,753.4M	16.2K	59.3K	15.40%	15.40%	15.43%

Exposure by simplified taxonomy

Adding `MACRO_TAXO` column

	COST_USD	BUILDINGS	OCCUPANTS	COST_USD_%	BUILDINGS_%	OCCUPANTS_%
MACRO_TAXO						
RC	\$5,102.8M	29,644	124.9K	44.81%	28.12%	32.50%
MR	\$4,363.3M	56,584	141.5K	38.32%	53.68%	36.80%
W	\$1,562.2M	17,192	118.0K	13.72%	16.31%	30.70%
S	\$323.9M	1,631	0.0K	2.84%	1.55%	0.00%
MCF	\$35.4M	353	0.0K	0.31%	0.33%	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	\$4,363.3M	56,584	43.95%	60.48%
RC	CR/LFINF+CDL+DUL/HEX:2/RES	\$2,015.7M	20,108	20.31%	21.49%
	CR/LFINF+CDM+DUM/HEX:4/COM	\$1,560.8M	1,023	15.72%	1.09%
W	W+WLI/LWAL+CDM+DUM/HEX:1/RES	\$1,208.9M	15,676	12.18%	16.75%
RC	CR/LFINF+CDM+DUM/HEX:2/COM	\$778.1M	170	7.84%	0.18%

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