

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 = "French_Guiana"
```

Exposure files:
Exposure_Com_French_Guiana.csv
Exposure_Ind_French_Guiana.csv
Exposure_Res_French_Guiana.csv

Sanity checks and formats

Exposure at National level

Summary by occupancy type

	OCCUPANTS	BUILDINGS	COST_USD	BUILDINGS_%	COST_USD_%
OCCUPANCY					
Res	306.4K	33,397	\$4,957.5M	94.07%	86.51%
Ind	0.0K	865	\$302.0M	2.44%	5.27%
Com	0.0K	1,241	\$470.7M	3.50%	8.22%

Other metrics to consider

	AREA_SQM	COST_BUILDING_USD	AVG_BUILDING_AREA_SQM	AVG_COST_PER_AREA_USD
OCCUPANCY				
Total	4,249.6K	\$4,443.2M	120	\$1,348
Res	3,615.8K	\$3,966.0M	108	\$1,371
Ind	239.3K	\$161.5M	277	\$1,262
Com	394.6K	\$315.7M	318	\$1,193

Exposure summary at Admin level 1

	COST_USD	BUILDINGS	OCCUPANTS	COST_USD_%	BUILDINGS_%	OCCUPANTS_%
NAME_1						
Cayenne	\$3,793.8M	23.0K	169.4K	66.21%	64.81%	55.30%
Saint-Laurent-du-Maroni	\$1,936.5M	12.5K	137.0K	33.79%	35.19%	44.70%

Exposure by simplified taxonomy

Adding `MACRO_TAXO` column

	COST_USD	BUILDINGS	OCCUPANTS	COST_USD_%	BUILDINGS_%	OCCUPANTS_%
MACRO_TAXO						
RC	\$1,702.3M	3,026	83.1K	29.71%	8.52%	27.11%
MUR	\$1,623.7M	12,730	96.4K	28.34%	35.85%	31.46%
MCF	\$1,537.4M	13,079	81.1K	26.83%	36.84%	26.46%
W	\$755.4M	6,213	45.9K	13.18%	17.50%	14.97%
S	\$86.3M	334	0.0K	1.51%	0.94%	0.00%
MR	\$25.1M	122	0.0K	0.44%	0.34%	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				
MCF	MCF/LWAL+DUL/H:1/RES	\$1,025.6M	10,389	19.90%	30.79%
MUR	MUR/LWAL+DNO/H:1/RES	\$835.4M	8,462	16.21%	25.08%
W	W+WLI/LWAL+DNO/H:2/RES	\$554.1M	4,188	10.75%	12.41%
	CR/LFINF+DUL/H:3/RES	\$547.3M	1,848	10.62%	5.48%
RC	CR/LFINF+DUL/HBET:4-6/RES	\$448.2M	321	8.70%	0.95%
	MUR/LWAL+DNO/H:2/RES	\$359.8M	2,720	6.98%	8.06%
MUR	MUR/LWAL+DNO/H:3/RES	\$358.9M	1,212	6.96%	3.59%
RC	CR/LFINF+DUL/HBET:7-/RES	\$293.6M	84	5.70%	0.25%
MCF	MCF/LWAL+DUL/H:2/RES	\$256.4M	1,938	4.97%	5.74%
W	W+WLI/LWAL+DNO/H:1/RES	\$198.7M	2,013	3.85%	5.96%
MCF	MCF/LWAL+DNO/H:2/COM	\$133.7M	325	2.59%	0.96%
	CR/LFINF+DNO/HBET:1-3/IND	\$87.6M	206	1.70%	0.61%
RC	CR/LFINF+DNO/HBET:4-6/RES	\$55.4M	40	1.07%	0.12%

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