

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 S
hapely GEOS version (3.9.1-CAPI-1.14.2) is incompatible with the GEOS version PyGEOS was compil
ed with (3.10.1-CAPI-1.16.0). Conversions between both will be slow.
  warnings.warn(
```

```
# Parameters
country = "US_Virgin_Islands"
```

Exposure files:
Exposure_Com_US_Virgin_Islands.csv
Exposure_Ind_US_Virgin_Islands.csv
Exposure_Res_US_Virgin_Islands.csv

Sanity checks and formats

US_Virgin_Islands
Exposure/Exposure/Exposure_Com_US_Virgin_Islands.csv
Exposure/Exposure/Exposure_Ind_US_Virgin_Islands.csv
Exposure/Exposure/Exposure_Res_US_Virgin_Islands.csv
Not possible to check if No_dwellings >= No_buildings.
Missing column 'DWELLINGS' in DataFrame
Occupants / Buildings = 2.7
No refence household size data available
Population (exposure / UN_2021) = 1.02
Exposure models OK

Exposure at National level

Summary by occupancy type

	OCCUPANTS	BUILDINGS	COST_USD	BUILDINGS_%	COST_USD_%
OCCUPANCY					
Res	106.4K	38,845	\$22,719.2M	90.57%	65.44%
Ind	0.0K	780	\$2,357.6M	1.82%	6.79%
Com	0.0K	3,262	\$9,642.3M	7.61%	27.77%

Other metrics to consider

	AREA_SQM	COST_BUILDING_USD	AVG_BUILDING_AREA_SQM	AVG_COST_PER_AREA_USD
OCCUPANCY				
Total	12,721.0K	\$20,821.7M	297	\$2,729
Res	9,446.8K	\$15,145.9M	243	\$2,405
Ind	588.6K	\$948.6M	755	\$4,005
Com	2,685.6K	\$4,727.1M	823	\$3,590

Exposure summary at Admin level 1

	COST_USD	BUILDINGS	OCCUPANTS	COST_USD_%	BUILDINGS_%	OCCUPANTS_%
NAME_1						
United States Virgin Islands	\$34.7B	42.9K	106.4K	100.00%	100.00%	100.00%

Exposure by simplified taxonomy

Adding `MACRO_TAXO` column

	COST_USD	BUILDINGS	OCCUPANTS	COST_USD_%	BUILDINGS_%	OCCUPANTS_%
MACRO_TAXO						
OT	\$34.7B	42.9K	106.4K	100.00%	100.00%	100.00%

Exposure by taxonomy

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

		COST_USD	BUILDINGS	COST_USD_%	BUILDINGS_%
MACRO_TAXO	TAXONOMY				
OT	RES1-URML-LC	\$8,527.9M	18,989	27.36%	46.27%
	RES1-W1-MC	\$3,224.4M	7,180	10.35%	17.49%
	RES1-URML-PC	\$2,266.9M	5,048	7.27%	12.30%
	COM1-URML-LC	\$1,689.3M	564	5.42%	1.37%
	RES3A-URML-LC	\$1,332.9M	2,028	4.28%	4.94%
	IND1-URML-LC	\$1,027.8M	296	3.30%	0.72%
	RES4-URML-LC	\$977.2M	441	3.14%	1.07%
	COM4-URML-LC	\$899.8M	273	2.89%	0.67%
	COM1-W1-MC	\$762.3M	254	2.45%	0.62%
	COM4-W1-MC	\$685.6M	208	2.20%	0.51%
	RES3A-C2L-MC	\$649.0M	987	2.08%	2.41%
	COM8-URML-LC	\$608.2M	268	1.95%	0.65%
	COM8-W1-MC	\$592.6M	261	1.90%	0.64%
	COM1-URML-PC	\$563.1M	188	1.81%	0.46%
	RES4-W1-MC	\$499.5M	225	1.60%	0.55%
	RES3B-URML-LC	\$485.2M	616	1.56%	1.50%
	RES3D-URML-LC	\$421.3M	137	1.35%	0.33%
	RES3C-URML-LC	\$383.2M	127	1.23%	0.31%
	COM6-W1-MC	\$369.5M	8	1.19%	0.02%
	RES3C-C2L-MC	\$369.5M	122	1.19%	0.30%
	RES3D-C2L-MC	\$347.6M	113	1.12%	0.28%
	IND1-URML-PC	\$342.6M	99	1.10%	0.24%
	RES3A-URML-PC	\$333.2M	507	1.07%	1.23%
	RES4-URML-PC	\$325.7M	147	1.05%	0.36%
	COM2-W1-MC	\$304.7M	126	0.98%	0.31%
	COM4-URML-PC	\$299.9M	91	0.96%	0.22%
	RES3B-C2L-MC	\$280.7M	356	0.90%	0.87%
	COM1-S3-MC	\$253.0M	84	0.81%	0.21%
	IND1-S3-MC	\$221.2M	64	0.71%	0.16%
	COM2-URML-LC	\$214.0M	88	0.69%	0.22%
	COM6-URML-LC	\$207.9M	5	0.67%	0.01%
	COM8-URML-PC	\$202.7M	89	0.65%	0.22%
	IND3-URML-LC	\$199.5M	58	0.64%	0.14%
	COM3-URML-LC	\$195.6M	166	0.63%	0.40%
	COM3-W1-MC	\$189.3M	160	0.61%	0.39%
	COM6-S3-MC	\$175.3M	4	0.56%	0.01%
	RES3A-C2L-PC	\$171.3M	261	0.55%	0.64%
	RES3A-W1-MC	\$163.9M	249	0.53%	0.61%
	RES3C-W1-MC	\$148.2M	49	0.48%	0.12%
	RES3E-C2L-MC	\$131.1M	19	0.42%	0.05%
	IND2-URML-LC	\$125.0M	86	0.40%	0.21%