

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 = "Slovakia"
```

Exposure files:
Exposure_Com_Slovakia.csv
Exposure_Ind_Slovakia.csv
Exposure_Res_Slovakia.csv

Sanity checks and formats

Exposure at National level

Summary by occupancy type

	OCCUPANTS	BUILDINGS	COST_USD	BUILDINGS_%	COST_USD_%
OCCUPANCY					
Res	5,454.0K	862.3K	\$182.4B	86.54%	55.57%
Ind	2,144.7K	75.6K	\$102.3B	7.59%	31.15%
Com	2,181.6K	58.5K	\$43.6B	5.87%	13.28%

Other metrics to consider

	AREA_SQM	COST_BUILDING_USD	AVG_BUILDING_AREA_SQM	AVG_COST_PER_AREA_USD
OCCUPANCY				
Total	167.5M	\$208.6B	168	\$1,959
Res	130.2M	\$145.9B	151	\$1,401
Ind	28.0M	\$40.9B	370	\$3,651
Com	9.3M	\$21.8B	158	\$4,705

Exposure summary at Admin level 1

	COST_USD	BUILDINGS	OCCUPANTS	COST_USD_%	BUILDINGS_%	OCCUPANTS_%
NAME_1						
Zilinsky	\$53.0B	136.6K	1,263.5K	16.14%	13.71%	12.92%
Bratislavsky	\$47.4B	166.7K	1,075.0K	14.44%	16.73%	10.99%
Banskobystricky	\$45.6B	162.9K	1,208.3K	13.89%	16.35%	12.35%
Kosicky	\$45.5B	140.5K	1,397.9K	13.85%	14.10%	14.29%
Presovsky	\$38.6B	140.1K	1,422.9K	11.75%	14.06%	14.55%
Trnavsky	\$36.0B	107.7K	1,005.5K	10.97%	10.81%	10.28%
Nitriansky	\$34.8B	73.1K	1,302.0K	10.61%	7.34%	13.31%
Trenciansky	\$27.4B	68.8K	1,105.2K	8.35%	6.91%	11.30%

Exposure by simplified taxonomy

	COST_USD	BUILDINGS	OCCUPANTS	COST_USD_%	BUILDINGS_%	OCCUPANTS_%
MACRO_TAXO						
RC	\$156,395.2M	161.4K	4,961.0K	47.65%	16.20%	50.72%
MUR	\$70,451.1M	517.5K	2,172.1K	21.46%	51.94%	22.21%
S	\$46,908.5M	35.5K	1,008.0K	14.29%	3.57%	10.31%
MCF	\$44,724.0M	206.1K	1,360.2K	13.63%	20.69%	13.91%
ADO/E	\$7,611.8M	60.9K	199.6K	2.32%	6.12%	2.04%
W	\$2,152.9M	14.9K	79.4K	0.66%	1.50%	0.81%

Exposure by taxonomy

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

		COST_USD	BUILDINGS	COST_USD_%	BUILDINGS_%
MACRO_TAXO	TAXONOMY				
RC	CR+PC/LWAL+CDN/HBET:3-5/RES	\$62,678.1M	87,334	21.36%	9.73%
S	S/LFM+CDL/H:1/IND	\$30,939.6M	23,436	10.54%	2.61%
RC	CR+PC/LFM+CDL/H:1/IND	\$29,342.7M	21,168	10.00%	2.36%
MUR	MUR+CL/LWAL+CDN/H:1/RES	\$24,306.0M	193,527	8.28%	21.56%
RC	CR+PC/LWAL+CDM/HBET:3-5/COM	\$21,744.4M	7,498	7.41%	0.84%
MUR	MUR+CL/LWAL+CDN/H:2/RES	\$15,239.7M	124,702	5.19%	13.90%
MCF	MCF/LWAL+CDL/H:1/RES	\$14,703.1M	105,992	5.01%	11.81%
RC	CR/LFM+CDL/H:1/IND	\$13,623.4M	9,828	4.64%	1.10%
MUR	MUR+ST/LWAL+CDN/H:1/RES	\$12,469.9M	99,345	4.25%	11.07%
MCF	MCF/LWAL+CDL/H:2/RES	\$9,450.2M	71,498	3.22%	7.97%
MUR	MUR+ST/LWAL+CDN/H:2/RES	\$8,497.8M	71,080	2.90%	7.92%
S	S+SL/LFM+CDL/H:1/IND	\$7,984.4M	6,048	2.72%	0.67%
MCF	MCF/LWAL+CDL/HBET:3-5/RES	\$7,729.6M	11,552	2.63%	1.29%
RC	CR/LFINF+CDL/HBET:3-5/RES	\$6,714.1M	9,372	2.29%	1.04%
MCF	MCF/LWAL+CDL/H:1/IND	\$6,287.7M	4,536	2.14%	0.51%
ADO/E	MUR+ADO/LWAL+CDN/H:1/RES	\$5,266.7M	42,314	1.79%	4.72%
RC	CR/LFINF+CDL/HBET:6-/RES	\$5,217.9M	3,279	1.78%	0.37%
RC	CR+PC/LWAL+CDN/HBET:3-5/COM	\$4,837.3M	1,859	1.65%	0.21%
MCF	MCF/LWAL+CDL/HBET:3-5/COM	\$3,322.1M	778	1.13%	0.09%
RC	CR+PC/LFM+CDM/H:1/IND	\$3,143.9M	2,268	1.07%	0.25%

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