

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 = "Finland"
```

Exposure files:
Exposure_Com_Finland.csv
Exposure_Ind_Finland.csv
Exposure_Res_Finland.csv

Sanity checks and formats

Exposure at National level

Summary by occupancy type

	OCCUPANTS	BUILDINGS	COST_USD	BUILDINGS_%	COST_USD_%
OCCUPANCY					
Res	5,520.0K	1,236.9K	\$392.8B	92.41%	56.83%
Ind	2,208.0K	40.0K	\$185.2B	2.99%	26.80%
Com	2,208.0K	61.6K	\$113.1B	4.60%	16.36%

Other metrics to consider

	AREA_SQM	COST_BUILDING_USD	AVG_BUILDING_AREA_SQM	AVG_COST_PER_AREA_USD
OCCUPANCY				
Total	191.4M	\$444.9B	143	\$3,610
Res	142.9M	\$314.2B	116	\$2,749
Ind	30.3M	\$74.1B	757	\$6,118
Com	18.3M	\$56.5B	297	\$6,178

Exposure summary at Admin level 1

	COST_USD	BUILDINGS	OCCUPANTS	COST_USD_%	BUILDINGS_%	OCCUPANTS_%
NAME_1						
Western Finland	\$289.2B	561.9K	3,957.9K	41.84%	41.98%	39.83%
Southern Finland	\$237.0B	444.3K	3,655.1K	34.30%	33.19%	36.79%
Eastern Finland	\$77.8B	161.8K	1,422.2K	11.26%	12.08%	14.31%
Oulu	\$60.9B	120.4K	577.8K	8.82%	9.00%	5.82%
Lapland	\$26.2B	50.1K	323.0K	3.79%	3.74%	3.25%

Exposure by simplified taxonomy

Adding `MACRO_TAXO` column

	COST_USD	BUILDINGS	OCCUPANTS	COST_USD_%	BUILDINGS_%	OCCUPANTS_%
MACRO_TAXO						
RC	\$406.8B	641.3K	5,988.3K	58.86%	47.91%	60.27%
MUR	\$114.1B	442.0K	1,714.7K	16.51%	33.02%	17.26%
W	\$96.9B	239.2K	1,349.8K	14.02%	17.87%	13.59%
S	\$73.4B	16.0K	883.2K	10.62%	1.20%	8.89%

Exposure by taxonomy

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

		COST_USD	BUILDINGS	COST_USD_%	BUILDINGS_%
MACRO_TAXO	TAXONOMY				
	CR/LFINF+CDN/H:3/RES	\$219.7B	562.6K	36.09%	46.50%
RC	CR+PC/LFM+CDN/H:1/IND	\$67.4B	14.0K	11.08%	1.16%
	CR/LFINF+CDL/H:3/COM	\$65.2B	29.0K	10.72%	2.40%
MUR	MUR+CB/LWAL+CDN/HBET:1-2/RES	\$56.8B	316.6K	9.33%	26.16%
S	S+SL/LFM+CDN/H:1/IND	\$45.9B	10.0K	7.53%	0.83%
RC	CR/LWAL+CDN/HBET:4-10/RES	\$43.2B	33.2K	7.10%	2.74%
	W/LWAL+CDN/H:1/IND	\$34.8B	8.0K	5.73%	0.66%
W	W/LPB+CDL/HBET:1-3/RES	\$27.5B	153.4K	4.52%	12.68%
S	S/LFM+CDN/H:1/IND	\$27.5B	6.0K	4.52%	0.50%
MUR	MUR+CL/LWAL+CDN/HBET:1-4/RES	\$20.6B	77.2K	3.38%	6.38%

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