

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 = "Belarus"
```

Exposure files:
Exposure_Com_Belarus.csv
Exposure_Ind_Belarus.csv
Exposure_Res_Belarus.csv

Sanity checks and formats

Exposure at National level

Summary by occupancy type

	OCCUPANTS	BUILDINGS	COST_USD	BUILDINGS_%	COST_USD_%
OCCUPANCY					
Res	10.0M	1,630.3K	\$164.9B	95.00%	76.90%
Ind	0.0M	24.4K	\$21.0B	1.42%	9.82%
Com	0.0M	61.3K	\$28.5B	3.58%	13.28%

Other metrics to consider

	AREA_SQM	COST_BUILDING_USD	AVG_BUILDING_AREA_SQM	AVG_COST_PER_AREA_USD
OCCUPANCY				
Total	235.8M	\$154.6B	137	\$909
Res	216.0M	\$131.9B	132	\$763
Ind	7.5M	\$8.4B	308	\$2,805
Com	12.3M	\$14.2B	201	\$2,315

Exposure summary at Admin level 1

	COST_USD	BUILDINGS	OCCUPANTS	COST_USD_%	BUILDINGS_%	OCCUPANTS_%
NAME_1						
Minsk	\$78.1B	564.0K	3,237.4K	36.43%	32.87%	32.40%
Homyel'	\$30.8B	260.1K	1,528.1K	14.38%	15.16%	15.29%
Brest	\$29.7B	251.4K	1,468.8K	13.86%	14.65%	14.70%
Vitsyebsk	\$27.3B	233.4K	1,373.1K	12.72%	13.60%	13.74%
Mahilyow	\$24.7B	205.7K	1,204.4K	11.54%	11.99%	12.05%
Hrodna	\$23.7B	201.4K	1,180.1K	11.07%	11.73%	11.81%

Exposure by simplified taxonomy

Adding `MACRO_TAXO` column						
	COST_USD	BUILDINGS	OCCUPANTS	COST_USD_%	BUILDINGS_%	OCCUPANTS_%
MACRO_TAXO						
RC	\$123.5B	556.3K	3,197.4K	57.61%	32.42%	32.00%
MUR	\$56.6B	745.2K	4,396.4K	26.38%	43.42%	44.00%
W	\$27.2B	406.0K	2,398.0K	12.67%	23.66%	24.00%
S	\$7.2B	8.5K	0.0K	3.34%	0.50%	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				
RC	CR/LWAL+CDL/HBET:3-5/RES	\$99,731.5M	521,685	51.75%	31.03%
MUR	MUR/LWAL+CDN/H:1/RES	\$30,179.9M	635,803	15.66%	37.82%
W	W/LFM+CDL/H:1/RES	\$20,302.5M	391,264	10.54%	23.28%
MUR	MUR+CB/LWAL+CDN/H:1/RES	\$14,662.7M	81,513	7.61%	4.85%
RC	CR+PC/LFM+CDN/H:1/IND	\$7,528.7M	8,536	3.91%	0.51%
S	S/LFM+CDN/RME/H:1/IND	\$7,170.2M	8,536	3.72%	0.51%
RC	CR/LWAL+CDL/HBET:3-5/COM	\$4,508.0M	4,153	2.34%	0.25%
MUR	MUR/LWAL+CDN/H:1/COM	\$4,355.5M	16,574	2.26%	0.99%
RC	CR/LWAL+CDL/H:1/COM	\$4,266.4M	12,952	2.21%	0.77%

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