

REGIONAL EXPOSURE SUMMARIES

Review main statistic of regional exposure models and create summaries across countries.

```
# Parameters
region = "South_America"

/tmp/ipykernel_15384/1912813979.py:17: DtypeWarning: Columns (22) have mixed types.Specify dtype
e option on import or set low_memory=False.
df = append_files_by_country(exposure_files.File_Path)
1 - Argentina
2 - Bolivia
3 - Brazil
4 - Chile
5 - Colombia
6 - Ecuador
7 - French_Guiana
8 - Guyana
9 - Paraguay
10 - Peru
11 - Suriname
12 - Uruguay
13 - Venezuela

Index(['COUNTRY', 'ID_1', 'NAME_1', 'TAXONOMY', 'OCCUPANCY', 'DWELLINGS',
      'BUILDINGS', 'OCCUPANTS', 'COST_USD', 'COST_STRUCTURAL_USD',
      'COST_NONSTRUCTURAL_USD', 'COST_CONTENTS_USD', 'COST_PER_AREA_USD'],
      dtype='object')
```

Exposure at National level by occupancy

BUILDINGS												
		Com		Ind		Res		Com_%		Ind_%		Res_%
COUNTRY												
Argentina		522,909		198,699		11,147.6K		4.41%		1.67%		93.92%
Bolivia		127,422		13,002		3,019.0K		4.03%		0.41%		95.56%
Brazil		2,200,633		738,668		58,167.5K		3.60%		1.21%		95.19%
Chile		290,173		149,882		3,912.9K		6.67%		3.44%		89.89%
Colombia		338,147		261,573		6,532.6K		4.74%		3.67%		91.59%
Ecuador		335,153		104,378		4,063.8K		7.44%		2.32%		90.24%
French_Guiana		1,241		865		33.4K		3.50%		2.44%		94.07%
Guyana		7,685		5,865		115.7K		5.94%		4.54%		89.52%
Paraguay		57,636		38,702		764.7K		6.69%		4.49%		88.81%
Peru		247,487		162,878		8,015.2K		2.94%		1.93%		95.13%
Suriname		2,848		2,168		42.6K		5.98%		4.55%		89.46%
Uruguay		26,240		22,439		452.3K		5.24%		4.48%		90.28%
Venezuela		289,910		190,799		6,636.2K		4.07%		2.68%		93.25%

COST_USD												
		Com		Ind		Res		Com_%		Ind_%		Res_%
COUNTRY												
Argentina		160,414.1M		78,278.0M		1,057,539.3M		12.38%		6.04%		81.59%
Bolivia		24,137.3M		2,739.7M		137,422.9M		14.69%		1.67%		83.64%
Brazil		676,800.2M		173,276.3M		4,449,441.9M		12.77%		3.27%		83.96%
Chile		136,828.5M		88,198.6M		700,566.7M		14.78%		9.53%		75.69%
Colombia		116,260.9M		69,845.1M		728,794.7M		12.71%		7.63%		79.66%
Ecuador		63,429.4M		36,411.3M		353,696.4M		13.99%		8.03%		77.99%
French_Guiana		470.7M		302.0M		4,957.5M		8.22%		5.27%		86.51%
Guyana		976.0M		817.9M		5,214.0M		13.93%		11.67%		74.40%
Paraguay		9,404.2M		8,969.1M		60,282.9M		11.96%		11.40%		76.64%
Peru		86,891.1M		44,419.0M		631,895.2M		11.39%		5.82%		82.79%
Suriname		362.1M		300.8M		2,091.9M		13.15%		10.92%		75.94%
Uruguay		11,030.1M		9,648.0M		63,603.5M		13.09%		11.45%		75.47%
Venezuela		65,281.9M		63,606.9M		394,440.7M		12.47%		12.15%		75.37%

Other metrics to consider

		AVG_BUILDING_AREA_SQM		AVG_COST_PER_AREA_USD	
COUNTRY	OCCUPANCY				
Argentina	Com	<div></div>	308	<div></div>	\$660
	Ind	<div></div>	329	<div></div>	\$650
	Res	<div></div>	97	<div></div>	\$757
Bolivia	Com	<div></div>	247	<div></div>	\$530
	Ind	<div></div>	321	<div></div>	\$355
	Res	<div></div>	78	<div></div>	\$449
Brazil	Com	<div></div>	288	<div></div>	\$717
	Ind	<div></div>	251	<div></div>	\$515
	Res	<div></div>	97	<div></div>	\$607
Chile	Com	<div></div>	305	<div></div>	\$1,005
	Ind	<div></div>	302	<div></div>	\$1,000
	Res	<div></div>	137	<div></div>	\$969
Colombia	Com	<div></div>	371	<div></div>	\$610
	Ind	<div></div>	286	<div></div>	\$493
	Res	<div></div>	151	<div></div>	\$574
Ecuador	Com	<div></div>	402	<div></div>	\$310
	Ind	<div></div>	312	<div></div>	\$600
	Res	<div></div>	95	<div></div>	\$691
French_Guiana	Com	<div></div>	318	<div></div>	\$800
	Ind	<div></div>	277	<div></div>	\$675
	Res	<div></div>	108	<div></div>	\$1,097
Guyana	Com	<div></div>	171	<div></div>	\$500
	Ind	<div></div>	231	<div></div>	\$325
	Res	<div></div>	73	<div></div>	\$439
Paraguay	Com	<div></div>	213	<div></div>	\$515
	Ind	<div></div>	276	<div></div>	\$450
	Res	<div></div>	121	<div></div>	\$501
Peru	Com	<div></div>	353	<div></div>	\$659
	Ind	<div></div>	299	<div></div>	\$495
	Res	<div></div>	96	<div></div>	\$617
Suriname	Com	<div></div>	213	<div></div>	\$400
	Ind	<div></div>	229	<div></div>	\$325
	Res	<div></div>	104	<div></div>	\$364
Uruguay	Com	<div></div>	305	<div></div>	\$925
	Ind	<div></div>	308	<div></div>	\$750
	Res	<div></div>	139	<div></div>	\$785
Venezuela	Com	<div></div>	258	<div></div>	\$570
	Ind	<div></div>	312	<div></div>	\$570
	Res	<div></div>	83	<div></div>	\$548

National exposure by simplified taxonomy

Adding `MACRO_TAXO` column

BUILDINGS																
		ADO/E_%	MCF_%	MR_%	MUR_%	OT_%	RC_%	S_%	W_%							
COUNTRY																
Argentina		3.01%	30.25%	0.00%	55.76%	0.86%	4.18%	0.96%	4.98%							
Bolivia		31.03%	14.73%	0.00%	42.30%	1.49%	1.03%	0.04%	9.38%							
Brazil		1.66%	24.24%	0.00%	58.59%	0.64%	5.51%	0.65%	8.72%							
Chile		2.19%	19.34%	15.60%	8.34%	1.46%	14.65%	1.83%	36.58%							
Colombia		2.65%	19.40%	4.85%	55.67%	1.88%	9.47%	1.55%	4.54%							
Ecuador		3.82%	28.08%	0.00%	43.02%	0.33%	5.24%	1.11%	18.41%							
French_Guiana		0.00%	36.84%	0.34%	35.85%	0.00%	8.52%	0.94%	17.50%							
Guyana		0.89%	3.76%	0.61%	7.94%	3.22%	10.82%	1.66%	71.10%							
Paraguay		0.00%	45.05%	0.69%	48.42%	0.00%	3.99%	1.80%	0.04%							
Peru		23.23%	31.56%	0.00%	21.76%	0.11%	2.77%	0.93%	19.66%							
Suriname		0.00%	3.66%	0.64%	72.45%	0.06%	3.62%	1.76%	17.81%							
Uruguay		0.00%	39.64%	0.54%	54.12%	0.00%	4.07%	1.59%	0.04%							
Venezuela		10.13%	20.23%	0.00%	56.38%	0.08%	2.98%	2.61%	7.59%							

COST_USD																
		ADO/E_%	MCF_%	MR_%	MUR_%	OT_%	RC_%	S_%	W_%							
COUNTRY																
Argentina		1.64%	43.38%	0.00%	30.49%	0.56%	17.74%	2.90%	3.28%							
Bolivia		21.58%	31.80%	0.00%	31.83%	1.23%	5.16%	0.11%	8.29%							
Brazil		0.86%	34.79%	0.00%	32.77%	0.41%	23.85%	1.69%	5.63%							
Chile		0.63%	19.21%	17.16%	4.70%	0.70%	36.25%	3.94%	17.42%							
Colombia		0.85%	25.14%	7.89%	26.33%	0.61%	35.06%	2.60%	1.52%							
Ecuador		1.89%	42.65%	0.00%	22.02%	0.19%	19.53%	2.37%	11.36%							
French_Guiana		0.00%	26.83%	0.44%	28.34%	0.00%	29.71%	1.51%	13.18%							
Guyana		0.43%	8.64%	0.81%	5.14%	1.57%	36.48%	2.93%	44.01%							
Paraguay		0.00%	52.55%	0.72%	27.42%	0.00%	16.47%	2.77%	0.07%							
Peru		10.56%	51.99%	0.00%	10.43%	0.06%	13.12%	2.72%	11.11%							