REGIONAL EXPOSURE SUMMARIES
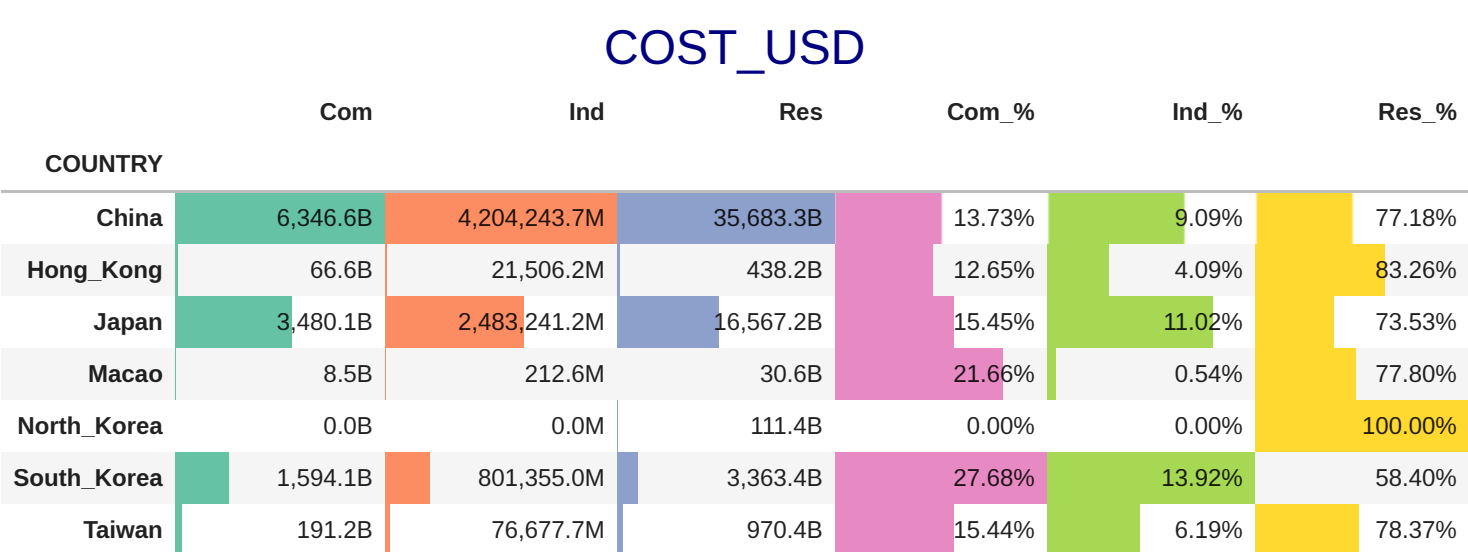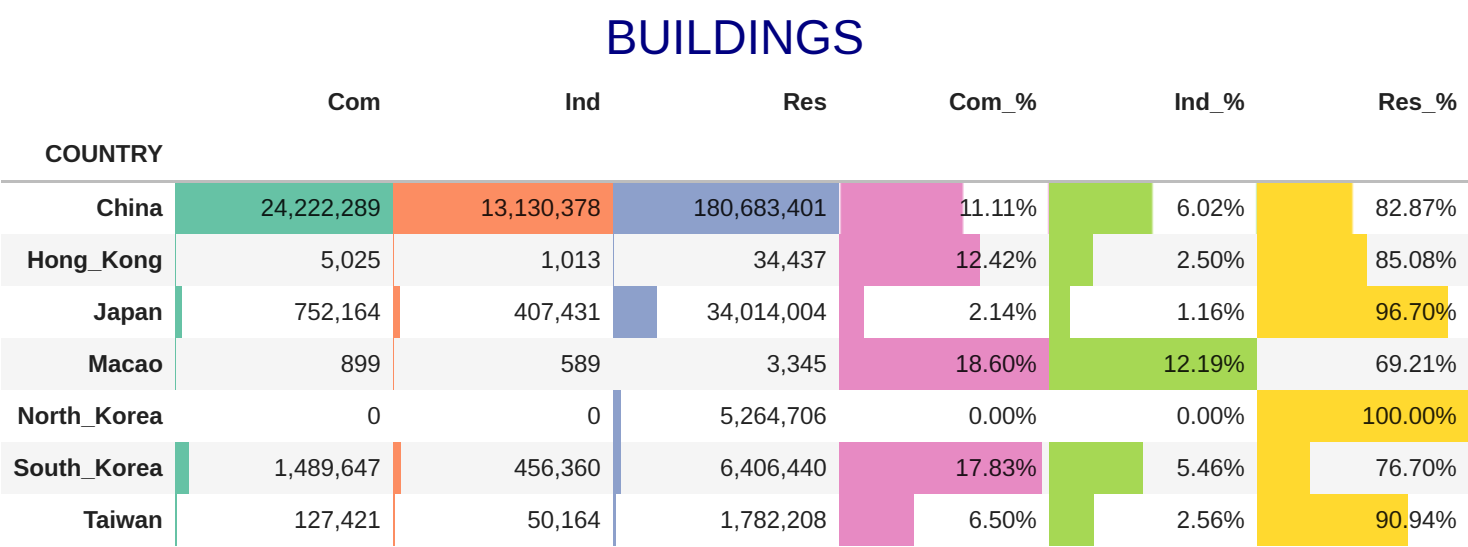
Review main statistic of regional exposure models and create summaries across countries.
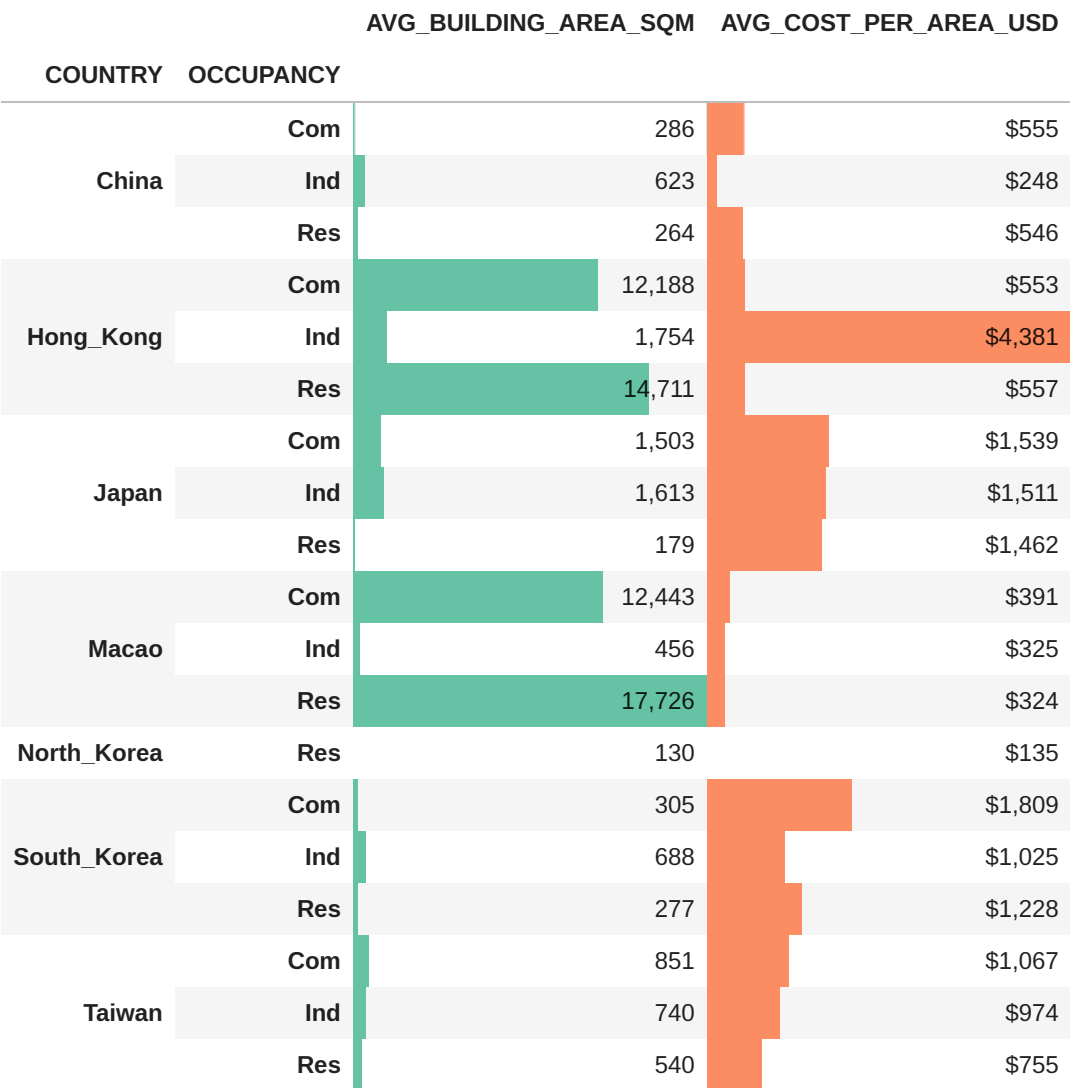
```
# Parameters
region = "East_Asia"
```

```
1 - China
2 - Hong_Kong
3 - Japan
4 - Macao
5 - South_Korea
6 - Taiwan
7 - North_Korea

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

COUNTRY	Com	Ind	Res	Com_%	Ind_%	Res_%
China	24,222,289	13,130,378	180,683,401	11.11%	6.02%	82.87%
Hong_Kong	5,025	1,013	34,437	12.42%	2.50%	85.08%
Japan	752,164	407,431	34,014,004	2.14%	1.16%	96.70%
Macao	899	589	3,345	18.60%	12.19%	69.21%
North_Korea	0	0	5,264,706	0.00%	0.00%	100.00%
South_Korea	1,489,647	456,360	6,406,440	17.83%	5.46%	76.70%
Taiwan	127,421	50,164	1,782,208	6.50%	2.56%	90.94%

COST_USD

COUNTRY	Com	Ind	Res	Com_%	Ind_%	Res_%
China	6,346.6B	4,204,243.7M	35,683.3B	13.73%	9.09%	77.18%
Hong_Kong	66.6B	21,506.2M	438.2B	12.65%	4.09%	83.26%
Japan	3,480.1B	2,483,241.2M	16,567.2B	15.45%	11.02%	73.53%
Macao	8.5B	212.6M	30.6B	21.66%	0.54%	77.80%
North_Korea	0.0B	0.0M	111.4B	0.00%	0.00%	100.00%
South_Korea	1,594.1B	801,355.0M	3,363.4B	27.68%	13.92%	58.40%
Taiwan	191.2B	76,677.7M	970.4B	15.44%	6.19%	78.37%

Other metrics to consider

COUNTRY	OCCUPANCY	AVG_BUILDING_AREA_SQM	AVG_COST_PER_AREA_USD
China	Com	286	$555
China	Ind	623	$248
China	Res	264	$546
Hong_Kong	Com	12,188	$553
Hong_Kong	Ind	1,754	$4,381
Hong_Kong	Res	14,711	$557
Japan	Com	1,503	$1,539
Japan	Ind	1,613	$1,511
Japan	Res	179	$1,462
Macao	Com	12,443	$391
Macao	Ind	456	$325
Macao	Res	17,726	$324
North_Korea	Res	130	$135
South_Korea	Com	305	$1,809
South_Korea	Ind	688	$1,025
South_Korea	Res	277	$1,228
Taiwan	Com	851	$1,067
Taiwan	Ind	740	$974
Taiwan	Res	540	$755

National exposure by simplified taxonomy

Adding `MACRO_TAXO` column

BUILDINGS

COUNTRY	ADO/E_%	M_%	MCF_%	MR_%	MUR_%	OT_%	RC_%	S_%	W_%
China	0.00%	0.00%	12.58%	0.00%	19.71%	5.11%	49.32%	0.00%	13.28%
Hong_Kong	0.00%	0.00%	0.00%	10.96%	0.00%	0.00%	88.42%	0.62%	0.00%
Japan	0.00%	0.33%	0.00%	0.00%	0.00%	0.04%	7.09%	12.38%	80.17%
Macao	0.00%	0.00%	34.35%	0.00%	2.32%	0.00%	62.92%	0.41%	0.00%
North_Korea	5.85%	0.00%	0.00%	0.00%	21.18%	0.00%	16.37%	51.64%	4.97%
South_Korea	0.00%	0.00%	0.92%	0.00%	41.64%	0.00%	39.02%	6.42%	12.00%
Taiwan	0.34%	0.00%	12.14%	0.00%	42.03%	0.00%	33.43%	11.38%	0.69%

COST_USD

COUNTRY	ADO/E_%	M_%	MCF_%	MR_%	MUR_%	OT_%	RC_%	S_%	W_%
China	0.00%	0.00%	15.74%	0.00%	9.05%	3.10%	64.92%	0.00%	7.18%
Hong_Kong	0.00%	0.00%	0.00%	8.73%	0.00%	0.00%	90.37%	0.90%	0.00%
Japan	0.00%	0.21%	0.00%	0.00%	0.00%	0.05%	21.68%	35.13%	42.93%
Macao	0.00%	0.00%	6.33%	0.00%	0.03%	0.00%	91.03%	2.61%	0.00%
North_Korea	4.71%	0.00%	0.00%	0.00%	21.68%	0.00%	16.75%	52.86%	4.00%
South_Korea	0.00%	0.00%	4.26%	0.00%	11.97%	0.00%	71.87%	9.33%	2.57%
Taiwan	0.03%	0.00%	7.29%	0.00%	14.63%	0.00%	68.79%	9.17%	0.08%