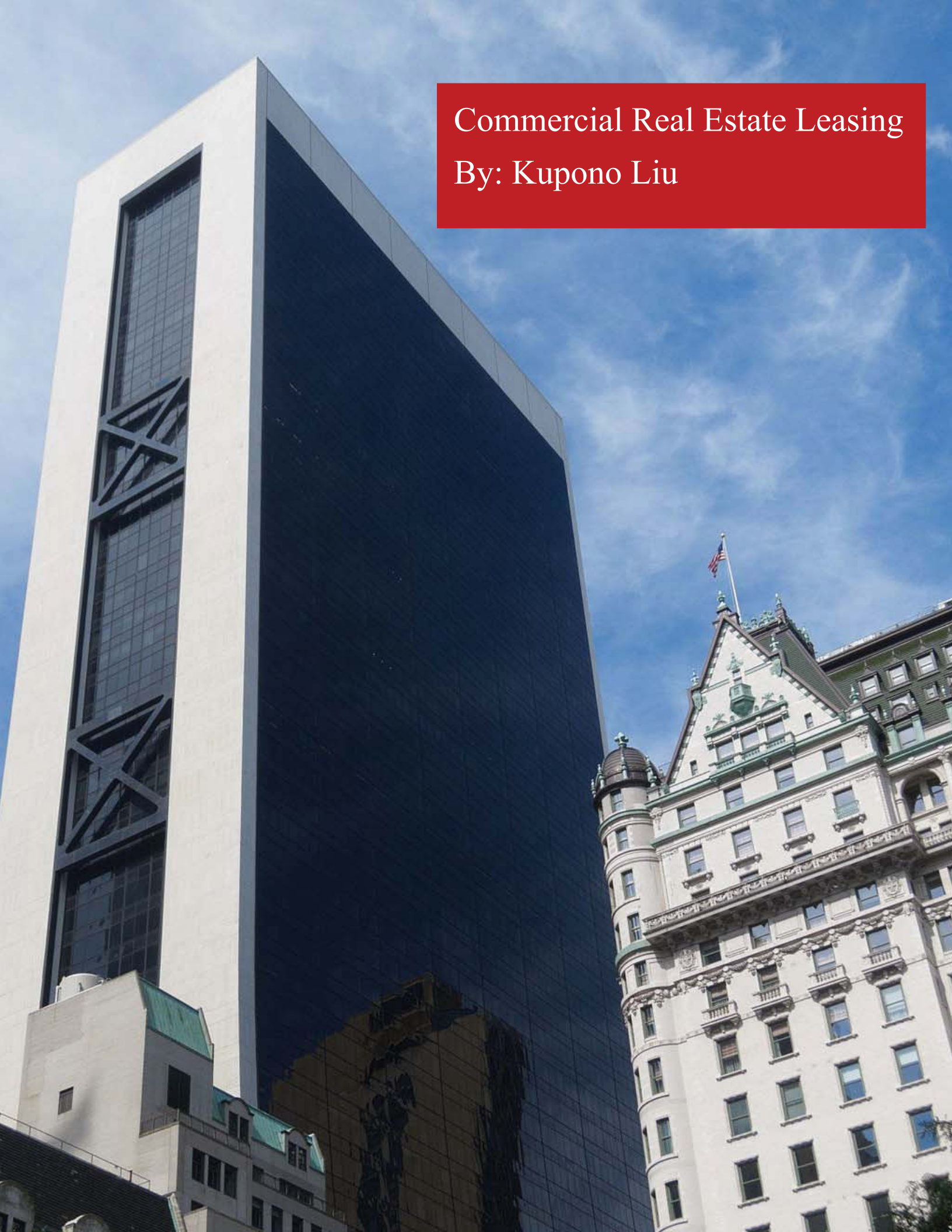


Commercial Real Estate Leasing

By: Kupono Liu

Contents

5. Rent per Floor Group

Ex-ante, rents should increase as you go higher up in the building (Higher floors = higher rents). Tenants are willing to pay higher rents for higher floors since these floors provide scenic views and a wealthy/powerful status symbol. The rent structure resembles a barbell where the higher floors (Floors 46-50) and the ground floor have the highest rents throughout the building. The tenants on floors 46-50 pay the second highest average 2017 inflation adjusted rent at $163.36 psf because they have a view of Central Park. Given that the GM building is located along Manhattan's Fifth Avenue, one of the most expensive shopping districts in the world, its retail space on the ground floor will command a premium. Retailers who are most likely to lease the GM Building's ground floor are top-tier luxury brands that can afford higher rents and will attract wealthy customers. In general, retailers tend to locate on the ground floor to attract foot traffic. In this case, the retailers in the GM building will capture wealthy tourists and residents and employees from the GM and adjacent buildings. As a result, the ground floor (retail space) has the highest average 2017 inflation adjusted rent at $998.91 psf.

Office tenants will locate in the middle of the building. In the GM Building and in general, the tenants in the middle floors pay the lowest rent. Although they don't get the scenic views on the top floor, they can exit the building faster in case of an emergency.

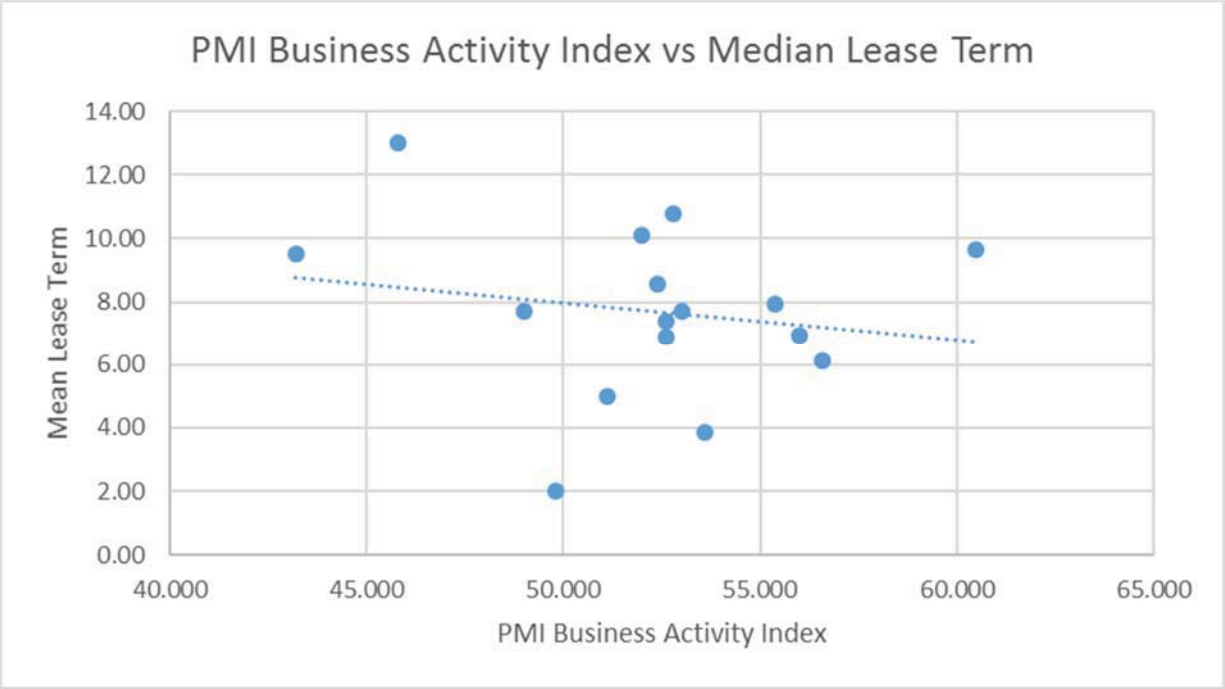
Figure 5 (Rent per Floor Group)

Floors	Inflation Adj 2017 Rent PSF Mean	Type
Ground Floor	$998.91	Retail/Office
2-5	$98.98	Office
6-10	$100.78	Office
11-15	$111.22	Office
16-20	$112.21	Office
21-25	$102.89	Office
26-30		Office
31-35		Office
36-40	$137.99	Office
41-45	$122.85	Office
46-50	$163.36	Office

6. Average Lease Term and Lease Concessions

Based on the graph between Mean Lease Term and PMI Business Activity Index, there is evidence of a negative relationship (-0.182) between these two variables. As a result, as business activity grows (index above 50), landlords will on average offer shorter lease terms. By having shorter term leases, landlords can keep up with market rental rates. Landlords would want to expose themselves to market rates during times of business activity growth since market rates are expanding. As a result, landlords can increase rental rates when shorter term contracts roll over (during times of economic expansion); landlords aren't locked into long term contracts with low rental rates. As business activity declines and becomes uncertain (index below 50), landlords will on average make lease terms longer. During uncertain economic times, landlords want to sign these tenants early on before rents decrease even more. Landlords will get tenants "locked" into longer-term contracts, and the landlords will get more guaranteed cash flows during times of economic uncertainty.

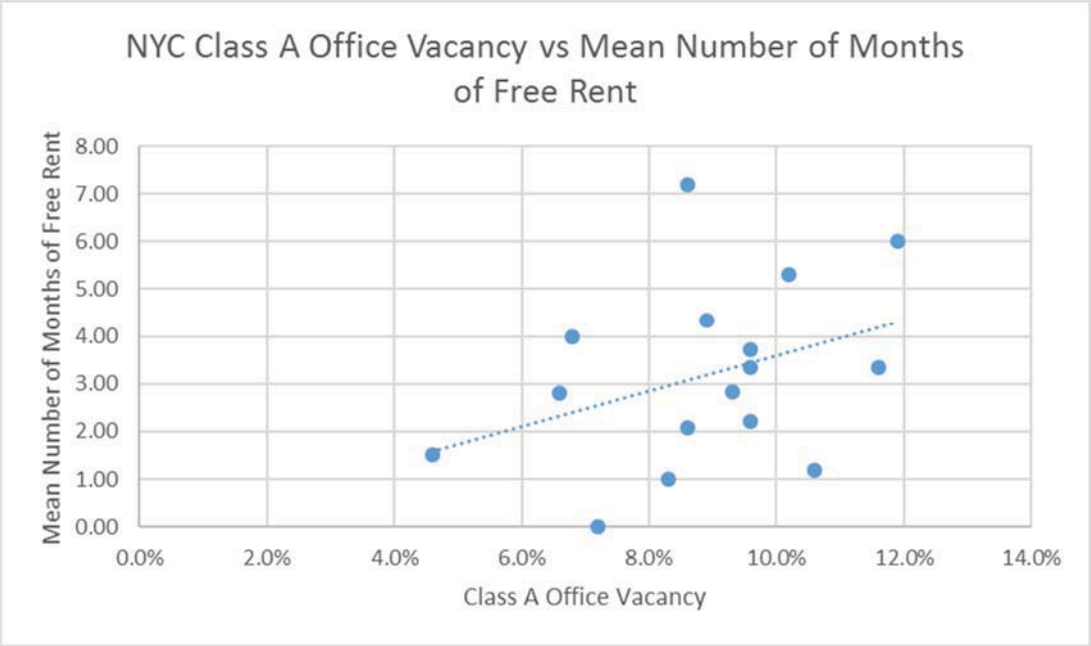
Figure 6a (PMI Business Activity Index vs Median Lease Term)



There is a positive relationship (correlation = +0.370) between the mean number of months of free rent and the submarket's softness. As the real estate submarket softens (supply exceeds demand and vacancy increases), the mean number of months of free rent will also increase. This makes sense because as real estate conditions worsen, the

market becomes a "buyers market" where prospective tenants have more leverage in lease negotiations. As a result, landlords will give concessions such as free rent to get tenants to occupy their buildings. In tight markets (demand is greater than supply and vacancy decreases), landlords have more leverage and are less willing to offer free rent. As a result, the average number of months of free rent in tight markets will decrease.

Figure 6b (NYC Class A Office Vacancy & Mean Number of Months of Free Rent)



Execution Year	Business Activity Index (June)	Office Vacancy: Class A NYC (REIS)	Average (Mean) Lease Term	Average (Mean) Free Rent (Mos)	Number of Leases Signed
2001	43.200	6.8%	9.50	4.00	3
2002	53.600	8.3%	3.88	1.00	2
2003	49.000	9.6%	7.69	2.22	9
2004	60.500	9.3%	9.66	2.82	11
2005	52.400	8.6%	8.58	2.08	12
2006	52.000	6.6%	10.11	2.80	10
2007	52.600	4.6%	6.88	1.50	4
2008	49.800	7.2%	2.00	0.00	1
2009	45.800	11.9%	13.00	6.00	4
2010	56.000	11.6%	6.96	3.33	6
2011	56.600	10.6%	6.10	1.20	5
2012	51.100	9.6%	5.00	3.33	3
2013	52.600	10.2%	7.38	5.31	13
2014	55.400	9.6%	7.95	3.73	11
2015	53.000	8.9%	7.72	4.33	3
2016	52.800	8.6%	10.80	7.20	5
	Corr (Bus Activity)		-0.182	-0.202	0.375
	Corr (Vacancy)		0.193	0.370	0.196