DOES PET POLICY IN A CONDOMINIUM BUILDING IMPACT PROPERTY VALUES?

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Anitha P. Muraleedharan Master of Spatial Analysis Ryerson University 2019

Abstract

Pets are permitted in some condominium buildings and not in others. Pet owners will therefore be attracted more towards buildings that welcome pets than otherwise. However, the pet-related regulations may altogether restrict all sorts of pets, including small pets, such as cats, while others may include restrictions on the number of pets allowed per unit, certain breeds or set restrictions on the permissible size of a pet. These restrictions may impact the price of condominiums. Using a hedonic price model, this research paper analyses whether and by how much allowance for pets in the building impacts property values in downtown Toronto using condominium sales data from January 2016 to December 2017 and information derived from a pet policy questionnaire.

The findings suggest that the price differences are not statistically significant between buildings that allow pets or otherwise. In fact, the real price difference is observed for the degree of pet friendliness. Condominium buildings that allow two or more pets sell for higher prices than those that allow less than two pets. Furthermore, condominium buildings that allow two or more dogs sell for a higher price. Also, condominium buildings that impose weight, size or breed restrictions cost 5.7 percent more than those do not have those restrictions.

Keywords: hedonic price model, pet policy, condominiums, GIS, Toronto

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1. Introduction

Pets are permitted in some condominium buildings and not in others. Pet owners will therefore more likely to be attracted towards buildings that welcome pets than otherwise. Assuming that the non-pet owners will not be averse to the idea of living in a building with pets, the desirability of buildings with pets should therefore be higher because such buildings will be attractive to both pet owners and the rest. It is acknowledged that some buyers, because of allergies, would prefer buildings with no pets. At the same time, the pet-related regulations may altogether restrict all sorts of pets; including small pets, such as cats, while others may include restrictions on the number of pets allowed per unit, certain breeds or set restrictions on the permissible size of a pet. Such restrictions may impact the price of dwellings. According to the Canadian Animal Health Institute (2019), 41 percent of households in Canada have at least one dog and 38 percent of households have at least one cat. With more than half of Canadian households owning a pet, a no pets policy isolates a significant number of potential buyers or renters (Toronto Condo News, 2014). The wide prevalence of pet ownership can also influence condominium corporations to change their pet policies or even eliminate them.

The objective of this research paper is to study the impact of pet policies of a condominium building on property values, while we control for other factors, such as the location of the building, and the physical attributes of the condominium. Using a hedonic price model, this research paper explores whether and by how much allowance for pets in a condominium building impacts property value. The study area chosen for this research paper is downtown Toronto which holds a large number of condominium buildings in the City of Toronto.

2. Study Area

Toronto is Canada's largest city. Its large population of immigrants also made Toronto one of the most multicultural cities in the world (City of Toronto, 2019a). As per Census 2016 by Statistics Canada, 292,265 (26 percent) of occupied private dwellings in Toronto were condominiums compared to 14 percent in the rest of the Greater Toronto and Hamilton Area (GTHA). The average price of a condominium apartment increased by 5.1 percent from \$561,343 in Q2 2018 to \$589,887 in Q2 2019. Year-over-year price growth in the City of Toronto, which accounted for almost 70 percent of condominium transactions, was slightly higher at 5.9 per cent, resulting in an average price of \$639,316 (Toronto Real Estate Board, 2019).

For my research, I have chosen downtown Toronto as the study area. The downtown boundary is taken from Google maps. It is defined as the area bounded by Bloor street in the north, Don Valley Parkway in the east, Lake Ontario to the south and Bathurst street in the west. A map of the study area is presented in Figure 1. Being the central business district of Toronto, downtown Toronto is home to the largest concentration of skyscrapers and businesses as well as condominiums that form Toronto's skyline. Toronto's quality of life and economic opportunities have made it one of the fastest growing cities in North America. Downtown accounts for approximately 3 per cent of Toronto's land area, yet it makes up roughly 40 per cent of the non-residential gross floor area and 38 per cent of the residential units proposed in the city (City of Toronto, 2019b). Downtown Toronto is Canada's largest employment cluster with over 500,000 jobs and relies on Union Station and the subway system for accessibility. Close to 240,000 people live in downtown, with more than 7,500 residents have been added annually over the past 5 years. By 2041, the population is projected to nearly double to reach 475,000 (City of Toronto, 2019b).

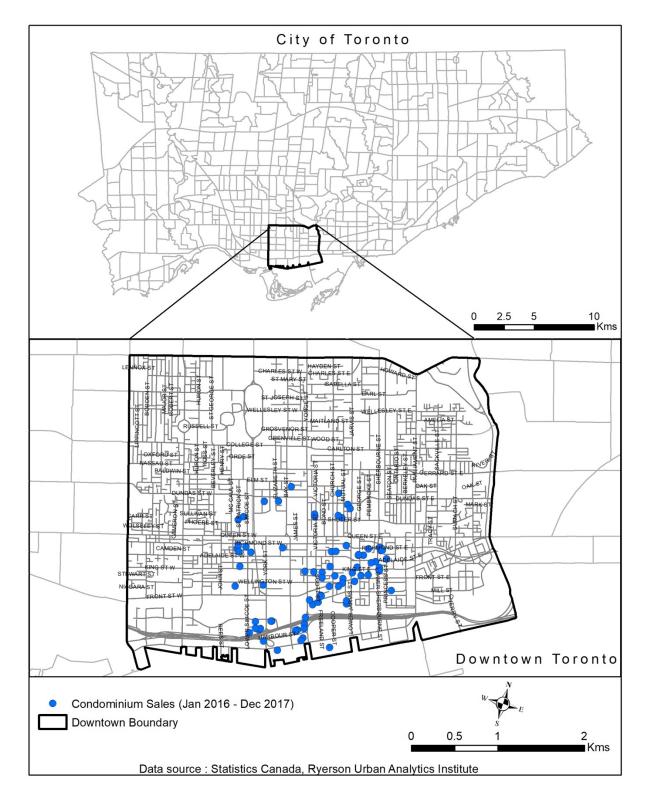


Figure 1: Location Map of the study area

3. Does Pet Policy in a Condominium Building Impact Property Values?

Literature on the impact of pet-related policies in condominium buildings on property values is scarce. Some stylized facts are presented here. Allowing pets with some restrictions could suggest that the building is of good quality and the restrictions are supposed to maintain the quality and the value of the building. Such restrictions may capitalize positively in property values. On the other hand, very strict restrictions on pet-ownership would signal to prospective buyers that a) pets are not welcome and b) even if owners don't have pets at present, future pet ownership will also be prohibited. This means that the building in its current format would be less attractive to a larger number of potential buyers who would see such restrictions as a constraint on their choice. Hence, pet-restrictions could impact positively or negatively on property values. As stated earlier, the academic literature is few and far between. In total I found 15 articles on this topic. The conclusions drawn are specific to location and not overwhelmingly positive or negative vis-à-vis pet ownership impact on dwelling prices. In addition to the academic literature, I also reviewed newspaper articles on this topic. I have organized the review into three sub-sections:

- a) Impact of pet-permission on prices
- b) A review of the City of Toronto regulations about what the buildings can and cannot restrict
- c) Hedonic price models

3.1 Impact of Pet-permission on Prices

Power (2008) states that in many instances, companion animals come to be viewed as core 'more-than-human' members of the family, with household practices shifting to incorporate their

needs and interests. There have been two dimensions to this change. The first is a steady shift that has seen animals such as dogs increasingly moved from living primarily outside the house to assuming residence inside. The second has seen companion animals welcomed within formerly 'human' spaces such as living areas and bedrooms (Franklin, 2006; Grier, 2006). These changes are driving shifts in the ways people live within the home, including the types of decorative and furnishing choices (Power, 2012).

Graham et.al (2018) found that landlords and property managers reported listings advertised as "pet-friendly" tend to receive more applicants than listings in which pets were prohibited. Though they focused on rental housing, the same could be extended to condominiums. Unrestricted pet policy could create a significant premium in condominium price, along with discounts for condominiums that do not allow pets or have pet restrictions. Lin et.al. (2013) based on a set of equations proposed by Malpezzi and Maclennan (2001), suggested that the impact of a particular pet-policy on housing prices can be positive or negative depending on the supply and demand due to the pet policy. Cannaday (1994) found that the net effect on value because of a covenant on pets depends upon exactly what types of pets were allowed. The author also found four categories of pet restrictions, "no-pets," "cats only", "small pets including dogs," and "large pets including dogs" where the restrictions were ordered from most restrictive to least restrictive. The result of the hedonic regression showed an optimal restriction level at "cats only," which added about 5.6 percent to the condominium price while "small pets" and "large pets" reduced the price by about 5.8 percent and 11.5 percent respectively. The author concluded that the empirical evidence supports the theory of covenants and specifically suggests that a pet covenant that allows only cats is preferred over a covenant that forbids all pet ownership or any covenant that permits dogs. In comparison Rogers (2006) found that building restrictions have no impact on prices, while use restrictions increase prices. Pets in households depends on the income of households. Higher income households were more likely to have dogs compared to low-income households (Camila et. al, 2013). Household incomes are associated with housing prices.

King (2014) referring to a study published in 2014 in the Journal of Real Estate Finance and Economics (JRFE) observed that buying a condo that doesn't allow dogs or cats (or other furry or feathered friends) would mean a discounted sale price later. JRFE study by Dr. Charles Carter analyzed resale condo restrictions and their respective selling prices for 22,000 condos sold in Ft. Lauderdale, Florida. The author found that when housing prices fell, condos with restrictions were sold at a discount, compared to similar units with no restrictions.

3.2 A review of the City of Toronto regulations about what the buildings can and cannot restrict.

While many condominiums allow pets, there are often rules in place that limit the number, breed and size of pets permitted. In cases where there is a size restriction, large pets are not allowed.

Often a rule will specify that a pet must not exceed either a specified height or weight. In this section, I review the City of Toronto pet regulations for condominium buildings.

Most condominium corporations' governing documents do contain some restrictions that relate to the keeping of pets in a unit. These restrictions may include restrictions on the types of animals that may be kept in a unit (e.g., no livestock), the number of animals that may be kept in a unit (e.g., no more than two pets per unit) or the size of the animals that may be kept in a unit (e.g., no pets over 25 lbs. in weight) (Duggan, 2017). Tenants in a condo building may feel they are not required to comply with a "no dogs" restriction because their tenancy is governed by the Residential Tenancies Act 2006, SO c.17. Section 14 of the Act states that "prohibiting the

presence of animals in or about the residential complex is void" (Residential Tenancies Act, 2019a). However, Condo Act clarifies this by stating that tenants are bound by provisions in the condo corporation's governing documents (Toronto Condo News, 2017).

Provisions regarding pet ownership are found in various places; from the Condominium Act of 1998 (Residential Tenancies Act, 2019b) to the documents created by the condominium corporation itself, i.e., the declaration, by-laws and rules. It may also specify other restrictions and obligations on the corporation and unit owners – this is the basis under which declarations contain provisions prohibiting or restricting pets. Subsections 58(1)(a) and (b) of the Condominium Act allow a corporation to make rules to promote the safety, security or welfare of the unit owners and the property and assets of the corporation, or to prevent unreasonable interference with the use and enjoyment of the common elements, the units or the assets of the corporation. While a provision restricting pet ownership in a declaration need not be reasonable, any such provisions in the rules must be (Blaikie, 2012).

There are several reasons some condos allow pets and others do not. Most prospective buyers want a choice. Some people may be allergic to animals and will want to be assured that when they walk down the hallways or enter an elevator they do not have to worry about an allergic reaction. There are also certain breeds of dogs that people could be afraid of. Pets can be banned from condo buildings if this right exists in the corporation's declaration or by-laws. Exceptions to this include protections in the Ontario Human Rights Code. Condo corporations have the right to create and enforce rules to protect privacy and common areas. A pet that barks, relieves itself in common areas or is threatening can be banned by a corporation enforcing its rules (Toronto Condo News, 2019).

In Ontario, service dogs (and other service animals) are exempt from pet bans in condominium communities. The right to have a service animal is protected under our Human Rights Code. You can't be prevented from having or acquiring a service animal, even if the condo bylaws say "no pets." (Condo.ca, nd).

According to Condominium Authority of Ontario (2019), condo corporation's declaration and rules may prohibit the keeping of any pets or may impose limitations on the kind or species of pets you are permitted to keep. In addition to the declaration, by-laws, and rules, section 117 of the Condominium Act, 1998 currently prohibits a person from allowing a condition to exist or to carry on activity in a unit or in the common elements if it is likely to damage the property or injure someone. This may apply if another owner keeps a pet that is dangerous, such as a poisonous snake or another reptile. Under this act, condominium corporations are required to enforce the provisions of the Act, declaration, by-laws, and rules of the condo. If an owner does not comply with the Act, declaration, or the by-laws or rules, legal action may be taken (Condominium Authority of Ontario, 2019).

Even if an activity is permissible under a municipal by-law, a condominium declaration, by-law or rule can still prohibit the same. For example, City of Toronto By-Law 349 (which is by-law that deals with animals) permits people to keep up to a maximum of three dogs, however, if a condominium declaration in Toronto states that no pets are permitted, then a person living in the condominium is not allowed to keep any dogs on the property (Fine & Deo, 2011). Sometimes condo corporations choose to amend their rules to include prohibiting pets over a certain weight. This mostly occurs in high-rise buildings where there are lobbies, hallways and elevators. Townhouse condominiums seldom have such a rule because of the exclusive-use of back or front yards and private entrances (Lincoln, 2012).

Section 58 of the Condominium Act, 1998, states that a condominium Board may pass rules respecting the condominium so long as they are reasonable and are for the purpose of preventing unreasonable interference with the property or for the safety, security and welfare of the residents and guests of the condominium (Payne, 2006). Condominiums may pass rules restricting pets on the condominium property if they are in keeping with the abovementioned criteria. Payne (2006) suggests that a blanket "No Pets" rule has been held to be unenforceable because it is not reasonable or in other words, it fails to demonstrate a good reason why a unit owner can't have a goldfish, a cat, or a guinea pig.

3.3 Hedonic price models

In the housing literature, a technique used to determine the price of large heterogenous goods, such as housing, is referred to as Hedonic Price Index, where the price of a house is estimated by evaluating the structural attributes of individual housing units and their neighbourhood characteristics (Haider, 1999). The hedonic method has subsequently yielded a vast applied literature, the basic premise of which is that by estimating the implicit price of each of the physical and locational attributes associated with a property it is possible to identify the impact of environmental events on the price surface (Case, et.al, 2006).

The hedonic framework usually relies on an Ordinary Least Squares (OLS) regression, and the coefficients are estimated so that the error term is minimized (Kraeussl et.al, 2019). The researchers usually apply two main methods, i.e., repeat-sales and hedonic regression to study the investment perspective of art and other heterogenous assets and found that hedonic indices are useful for studying movements within the art market and for studying the viability of heterogenous assets as an investment. The hedonic price method attempts to estimate the

marginal prices of each housing characteristic using the market price, which simultaneously is affected by supply and demand (Rogers, 2006). Economic theory makes clear that the hedonic model should include a full set of all significant determinates of the housing price, that is, variables that are costly to produce and which provide benefit to the buyer (Bowen, Mikelbank, and Prestegaard, 2001).

Yoshida & Sugiura (2015) estimated hedonic regression methods to study green buildings and found that each green factor has a unique effect on property prices. They compared the depreciating values of green and non-green buildings with reference to the value of new non-green buildings. They also found that the average price difference was negative for a new green condominium in Tokyo and overall, the transaction price of a new green condominium was lower than that of its non-green counterpart. Jim & Chen (2009) assessed the amenity value of two major types of natural landscapes in Hong Kong: harbor and mountain. The study was based on 1474 transactions in 2005 and 2006 in 18 private housing estates in a residential district. They employed hedonic pricing method to estimate the proportional share of various views and factors on transaction prices. They found that while a broad harbor view could increase the value of an apartment by 2.97 percent, negative perception of street view induced a price reduction of 3.7 percent. They also found that while a confined harbor view could lift price by 2.18 percent, a broad mountain view would depress apartment price by 6.7 percent, whereas a confined mountain view was statistically insignificant.

As found in the above literature reviews, hedonic price models can extract the implicit price of property attributes from property transaction prices. In this research, the hedonic price model is used to estimate the impact of condominium prices considering the pet policy attributes from the transaction prices of condominiums in downtown Toronto.

4. Data and Methodology

4.1 Data Preparation

The purpose of my research is to determine whether pet restrictions in condominiums have any impact on property values. For this, I obtained recent condominium sales data, where sales took place between January 2016 and December 2017 from Ryerson Urban Analytics Institute. The larger dataset covered more of the city. But the time constraint of reaching out to condominium corporations in getting the pet policy information limited me to work with a smaller number and hence I selected the buildings closest to the downtown core. This sampled dataset included 3594 sales of condominiums with variables including condominium corporation number, management name, address of the building, geographical location, amenities, exposure, square feet, sold price, sold date and pet permission. I cleaned and performed analysis using statistical analysis software SPSS. The dataset was already geocoded and was in ESRI shapefile format.

I identified the condominium corporations for the sampled buildings. During initial examination, I found that the variable "Pets Permitted" in the dataset contained only two values 'Restricted' and 'N'. For 3375 condominium sales in the dataset, the value for this variable was recorded as 'Restricted' which suggested that some restriction on pets existed. However, there were 209 units which had a value recorded as 'N' for the same variable which indicated that no pets were allowed in those buildings. There were 10 units for which no values were recorded or was empty. Out of these 10 units, 9 units were parking spaces and 1 unit was a locker and therefore the prices are too low compared to the others. The average sale price of the 'Restricted' units appeared to be higher than the 'N' units. The initial examination results are presented in Table 1.

Table 1: Initial examination results

Pets Permitted	Number of Units	Average Sold Price
	10	\$37,490
N	209	\$566,999
Restricted	3375	\$606,836
Total	3594	

Over a period of several weeks in June 2019, I contacted individual corporations for information on pet policies applied to condominiums managed by them where the value for 'Pets Permitted' variable in the dataset was recorded as 'Restricted'. I designed a questionnaire to collect information from condo corporations using a telephonic questionnaire (see, Appendix). Before I executed the questionnaire, it was submitted to Ryerson University's Research Ethics Board (REB) and was ruled exempt from REB review and did not require ethics approval. In total, there were 126 condominium buildings in the dataset. With the REB clearance in hand, I conducted the telephonic survey by calling each of the condominium corporations to gather information on pet-policies implemented by them for each of the buildings that they managed. After repeated attempts, I was able to get information from 80 buildings. When repeated attempts to contact rest of them failed, with the approval of my research supervisor, I excluded those sales that transpired in buildings where we were unable to get information on pet policy restrictions.

4.2 Methodology

Once the data was collected, I created new variables to codify the information about the petspermissibility in the building for a detailed analysis of the pet restrictions available in each condominium. For instance, a building may have restriction on the size, weight, number of pets, number of dogs, breed and so on. The variables had to be discretized as either 0 or 1, or in categorical terms to be meaningfully used in the statistical analysis. The definitions of the five new variables created are presented in Table 2 under Pet-Policy related variables section. Using the address as the key variable, the data collected for pet permission details were joined to the condominium sales data using ArcMap for further data cleaning, keeping all the data including the unmatched records. An illustration of the methodology is presented in Figure 2.

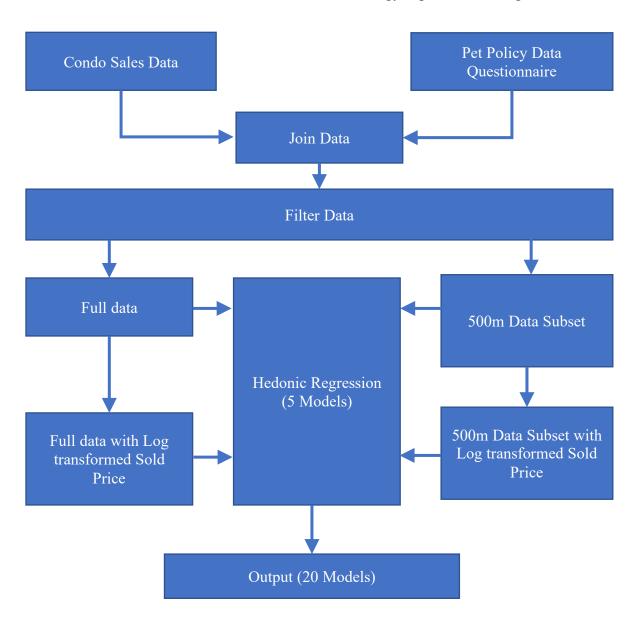


Figure 2: Methodology flowchart

For descriptive analysis, I generated frequency tabulations to select data and variables for analysis according to the research purpose. As the research is based on condominium sales data, the data had to be filtered to include only those sales where the Property Type was recorded as 'Condo Apt' and Building Structure was recorded as 'Apartment'. After this initial filtration, I excluded those condominiums that had 3 bedrooms since the units with 3-bedrooms were quite small in number. Likewise, condominiums with 4 washrooms and condominiums with Exposures 'NS' and 'EW' were also excluded from the analysis for a lack of sufficient observations. The data was again filtered with variable Parking Type to include values 'None' and 'Underground' and values other than these in Parking Type variable were removed from the data. The condominiums with values recorded as 'Don't Know' for the variables Maximum Pets Allowed and Maximum Dogs Allowed were removed. After the data cleaning process, total number of records in the dataset was 2954 out of which 221 records that had no information on pet policies were recorded as 'Missing', for each pet policy variables in the dataset. Therefore, the total number of records used in the analysis was 2733. Table – 2 lists the variables used in the analysis and their definitions.

The next step was to consolidate and re-arrange the values of some variables such as Locker, Balcony, Maximum Pets Allowed and Maximum Dogs Allowed in a meaningful way for the statistical analysis. The Recode function in SPSS was used to perform this operation for the aforementioned variables. Table – 3 provides the details of the consolidated variables.

Table 2: Variable Definitions

Variable Name Definition							
Dependent Variable							
Sold Price	Sold Price Sold price in Canadian dollars						
	Condominium characteristic variables						
Bedrooms	Number of bedrooms						
Washrooms	Number of washrooms						
Exposure	Codes indicating the exposure of the condominium (E, N, NE,						
Exposure	NW, S, SE, SW, W)						
Parking Type	Type of parking (None or underground)						
Locker	Type of Locker (None, Owned)						
Balcony	Type of Balcony (None, Open, Terrace, Enclosed)						
N	eighbourhood Characteristic (Covariates)						
Speed	Maximum allowed speed in km/h of the street in front of the						
Speed	condominium building						
Distance to station	Distance in kilometers to subway station						
Population density	Population density in the Dissemination Area (DA) containing the						
1 opulation density	condominium building						
After Tax Income	Household income after tax in the DA containing the						
Titter Tax meome	condominium building						
Immigrants	Immigrants in percentage in the DA containing the condominium						
Green View Index	Green View Index (GVI), an index value of the greenery in front						
Green view index	of the condominium building						
	Pet-Policy related variables						
Pets Allowed Yes, if the property allows pets, No otherwise							
Maximum Pets Allowed	Maximum number of pets allowed in the condominium (0, 1, 2+)						
Maximum Dogs	Maximum number of dogs allowed in the condominium $(0, 1, 2+)$						
Allowed	The state of the s						
Small Caged Pets	Yes, if the property allows small and caged pets, No otherwise						
Allowed							
Weight Size Restriction	Yes, if the property has weight or size restriction for pets, No						
	otherwise						

Table 3: Consolidated variables

Variable Name Consolidated Values				
Locker	None, Owned ('Owned', 'Common', 'Ensuite', 'Ensuite, Owned',			
	'Ensuite, Exclusive', 'Exclusive')			
Balcony	None, Open, Terrace, Enclosed (Enclosed, Juliette)			
Maximum Pets	0, 1 and 2+ (2, 3, 4, No Limit Currently)			
Allowed				
Maximum Dogs	0, 1 and 2+ (2, 3, 4, No Limit Currently)			
Allowed				

4.3 Multicollinearity Diagnostics

Multicollinearity refers to the condition where explanatory variables in a model are correlated. For instance, the number of washrooms and the number of bedrooms used together as explanatory variables in a regression model could suffer from multicollinearity such that in extreme cases the sign of estimated coefficient could reverse. To test the presence of multicollinearity for the selected variables in the dataset, I have included a Pearson correlation matrix (Table 4) as well as the Variance Inflation Factors (VIF) (Table 5) of the estimated coefficients in this dataset.

A review of the Pearson correlation coefficients suggests the presence of mild but statistically significant correlation between the following pairs of variables: Bedrooms with washrooms, Washrooms with Sold price, Pets Allowed with Maximum Pets Allowed and Maximum Pets Allowed with Maximum Dogs Allowed. However, a review of the variance inflation factors in the estimated model suggest that the presence of multicollinearity is mild or to an extent that does not invalidate the interpretation of coefficients. In all instances, variance inflation factors are below five. This suggests, that the presence of multicollinearity is only mild and does not pose a significant concern for the interpretation of this model.

Table 4: Pearson's correlations for full dataset (2733 observations)

	Correlations																	
	BR	WR	EXP	PT	LT	BT	SPD	DIS	PD	AI	IM	GV	PA	MP	MD	SCP	WSR	SP
BR	1																	
WR	.703**	1																
EXP	.083**	.067**	1															
PT	.213**	.218**	0.034	1														
LT	.167**	.154**	.052**	.155**	1													
BT	.170**	.127**	.083**	0.035	.069**	1												
SPD	-0.027	-0.020	044*	-0.025	-0.005	0.006	1											
DIS	-0.024	041*	.061**	.078**	.135**	.122**	.062**	1										
PD	-0.003	104**	0.034	0.000	.083**	.236**	.176**	.220**	1									
AI	0.014	.151**	0.019	0.000	058**	054**	080**	210**	586**	1								
IM	-0.013	-0.018	.054**	0.010	056**	0.020	-0.017	186**	.237**	200**	1							
GV	.064**	-0.004	-0.015	0.031	-0.029	.179**	054**	260**	246**	.136**	.059**	1						
PA	043*	069**	.038*	051**	.058**	.267**	0.012	.131**	.113**	0.018	279**	0.009	1					
MP	-0.034	-0.035	0.019	063**	.046*	.274**	087**	.077**	0.004	.121**	247**	.071**	.678**	1				
MD	056**	-0.016	0.008	060**	.103**	.159**	0.012	0.030	077**	.182**	151**	.111**	.544**	.727**	1			
SCP	0.004	0.020	0.006	-0.009	.110**	0.018	204**	.267**	.046*	.098**	131**	288**	.284**	.235**	.279**	1		
WSR	0.015	0.020	051**	070**	040*	175**	.103**	271**	-0.020	.071**	048*	124**	· c	157**	417**	094**	1	
SP	.527**	.645**	.096**	.188**	.158**	.103**	126**	136**	145**	.275**	-0.021	.074**	-0.020	.046*	.087**	.066**	.086**	1

^{**.} Correlation is significant at the 0.01 level (2-tailed). *. Correlation is significant at the 0.05 level (2-tailed). c. Cannot be computed because at least one of the variables is constant.

BR – Bedrooms, WR – Washrooms, EXP – Exposure, PT – Parking Type, LT – Locker, BT – Balcony, SPD – Speed, DIS – Distance to station, PD – Population Density, AI – After Tax Income, IM – Immigrants, GV – Green View Index, PA – Pet Allowed, MP – Maximum Pets Allowed, MD – Maximum Dogs Allowed, SCP – Small Caged Pets Allowed, WSR – Weight Size Restriction, SP – Sold Price

Table 5: Variance Inflation Factor of estimated coefficients in the full dataset

Variables	VIF
Bedrooms	2.125
Washrooms	2.156
Exposure	1.029
Parking Type	1.096
Locker	1.101
Balcony	1.256
Speed	1.216
Distance to station	1.447
Population Density	1.888
After Tax Income	1.697
Immigrants	1.184
Green View Index	1.387
Pets Allowed	2.109
Maximum Pets Allowed	1.695
Maximum Dogs Allowed	2.204
Small Caged Pets Allowed	1.339
Weight Size Restriction	1.550

4.4 Summary Statistics

The common determinants of housing price variables used in the analysis are summarized in Table 6. The dependent variable is Sold Price. The explanatory variables used in the analysis are Bedrooms, Washrooms, Sold Price, Green View Index, Speed, Distance, Immigrants, After Tax Income and Population Density. Descriptive statistics of categorical variables used in the statistical analysis is presented in Table 7.

Table 6: Descriptive statistics of condominium sales data

Variables	Mean	SD	Min	Max			
Bedrooms	1.30	.536	0	2			
Washrooms	1.44	.550	1	3			
Sold Price	572335	282131	193000	4150000			
Green View Index	7.12	5.43	.92	29.36			
Speed	48.81	9.394	40	60			
Distance	.4402	.21132	.03	1.00			
Immigrants	39.6371	6.23856	31.73	54.37			
After Tax Income	60238.74	16708.05	35422	108037			
Population Density	15622	4778.60	2628.02	21272.25			
Number of	2733						
Observations							

Table 7: Descriptive statistics of categorical variables used in the statistical analysis

Condom	inium Characteristics V	ariables (Full data, 273	33 units)	
	Sold Price an	d Exposure	,	
Exposure	Mean	SD	N	
East	516950	207969	451	
North	481248	145241	412	
NE	663716	380978	209	
NW	668742	326211	190	
South	534126	227831	445	
SE	690160	333815	293	
SW	679862	381974	282	
West	521886	235718	451	
	Sold Price and	Parking Type		
Parking Type	Mean	SD	N	
None	446990	113380	416	
Underground	594840	297091	2317	
	Sold Price a	nd Locker		
Locker	Mean	SD	N	
None	519564	254942	1137	
Owned	609930	294361	1596	
	Sold Price an	nd Balcony		
Balcony	Mean	SD	N	
Enclosed	473347	132967	237	
None	546539	318486	580	
Open	584976	268876	1795	
Terrace	702339	406432	121	
	Sold Price and	d Bedrooms		
Bedrooms	Mean	SD	N	
0	314821	51485	104	
1	475465	116462	1695	
2	776806	376651	934	
	Sold Price and	Washrooms		
Washrooms	Mean	SD	N	
1	455375	104032	1616	
2	672849	200410	1040	
3	1669384	658626	77	

From 2733 observations in Table 6, we can see that the average price of the condominium in the sales data is \$572,335 with a standard deviation of \$282,131. The average number of bedrooms is 1.3 and the average number of washrooms is 1.44. The average Green View Index is 7.1 while the average speed limit is 48.8 km/h with a minimum value of 40 km/h and a maximum of 60

km/h. The average distance to subway station is 0.44 km with a minimum of 0.03 km and a maximum of 1 km. The average percentage of immigrants in the data is 39 percent. The average After Tax Income in the data is \$60,238 with a low of \$35,422 and a high of \$108,037. The average population density in the data is 15622.

Table 7 suggests the impact of categorical variables on sold price. For the Exposure variable, the sold price is high at an average value of \$690,160 for a condominium exposed towards south east (SE) while it is low at an average price of \$481,248 for a condominium facing north (N). However, the maximum number of units sold are those that face east (E) and west (W) with a total sale of 451 units each. Condominiums with underground parking sold the most with an average value of \$594,840. The units that had owned-locker sold for more at an average price of \$609,930. Units with a balcony type terrace sold at a higher price than other balcony types. The average price of units increases with number of bedrooms as well as number of washrooms.

As the objective of this research paper is to study the impact of pet policies of a condominium building on property values, my primary variables of interest are Pets Allowed, Maximum Pets Allowed, Maximum Dogs Allowed, Small Caged Pets Allowed and Weight Size Restriction. For initial analysis of the impact of these variables on sold price, I have tabulated them on Table 8.

Table 8: Impact of Pet policy variables on Sold Price

Sold Price and Pets Allowed				
Pets Allowed	Mean	SD	N	
Yes	571353	285080	2650	
No	603696	159684	83	
Sold Price and Maximum Dogs Allowed				
Maximum Dogs Allowed	Mean	SD	N	
0	603696	159684	83	
1	520217	171284	789	
2+	593033	318961	1861	

Table 8 continued

Sold Price and Maximum Pets Allowed					
Maximum Pets Allowed	Mean	SD	N		
0	603696	159684	83		
1	514727	175283	380		
2+	580832	298534	2270		
Sold Price and Small Caged Pets Allowed					
Small Caged Pets	Mean	SD	N		
Allowed					
Yes	583924	310398	1970		
No	542412	187560	763		
Sold Price and Weight Size Restriction					
Weight Size Restriction	Mean	SD	N		
Yes	602366	376425	1024		
No	551822	205652	1626		

From Table 8, we can see that the average price of a condominium in downtown Toronto where pets are not allowed is \$603,696 as compared to \$571,353 where pets are allowed with a standard deviation of \$159,684 and \$285,080 respectively. Most sales (2650 sales) happened in condominium properties where pets were allowed. The average value of condominium where the maximum number of dogs allowed is 2 or more is \$593,033. Condominiums that allowed 2 or more pets were sold the most (2270 sales) with an average price of \$580,832. Condominiums that allowed small or caged pets had an average price of \$583,924. The average sold price of a condominium with Weight Size Restriction is \$602,366 with a standard deviation of \$376,425.

The frequency of units sold with respect to the Maximum Pets Allowed variable is mapped in Figure 3. This map shows that the number of sales in three of the buildings is more than 100 for which the addresses are 12 York Street, 14 York Street and 8 The Esplanade that were built in 2015. Since the buildings are very new the original owners may have flipped the condominiums to new owners after the completion of the building.

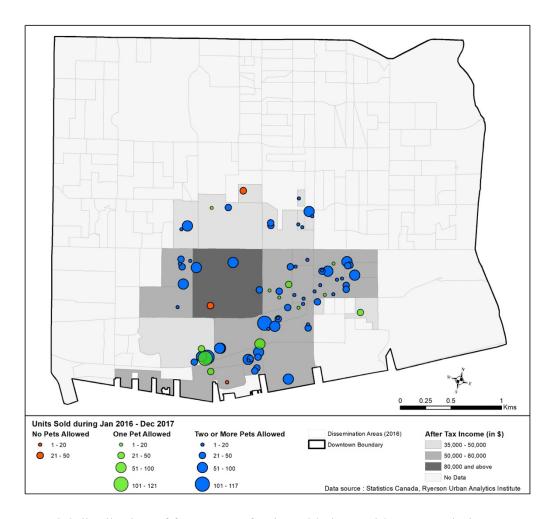


Figure 3: Spatial distribution of frequency of units sold along with pet permissions

The average price of units sold for zero, one- and two-bedroom condominiums along with the maximum number of pets allowed in each were mapped to spatially analyze the impact of Maximum Pets Allowed variable in sold price (Figures 4, 5 and 6). The three maps showed that condominiums that allowed 2 or more pets were the most frequently sold and went for a higher price than others.

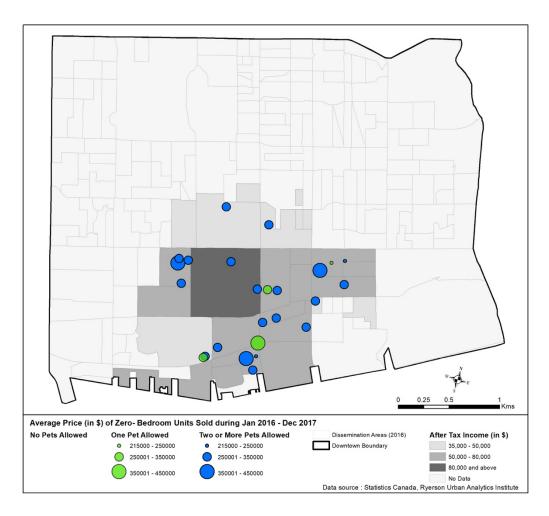


Figure 4: Spatial distribution of zero-bedroom units sold along with pet permissions

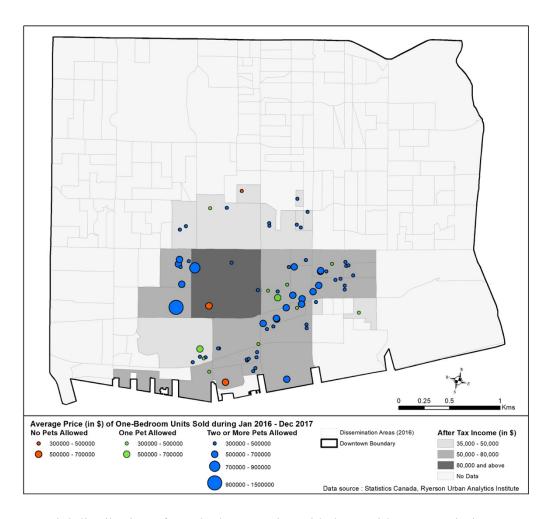


Figure 5: Spatial distribution of one-bedroom units sold along with pet permissions

I further noted that out of 2733 units 83 units did not allow pets on their properties. These 83 units were housed in 3 condominium buildings in the study area. The spatial distribution of condominium buildings sold with pet permissions along with after-tax income in their corresponding DAs are mapped in Figure 7. Since the number of units that do not allow pets is very small (83 units) compared to the number of units that allow pets (2650 units), I decided to use the first law of Geography in my analysis to narrow down the comparables. The law states that "everything is related to everything else, but near things are more related than distant things" (Tobler, 1970) or in other words, things closer in space are more similar. To effectively apply this law in my analysis, I used ArcMap to create a buffer of 500 meters around each of the

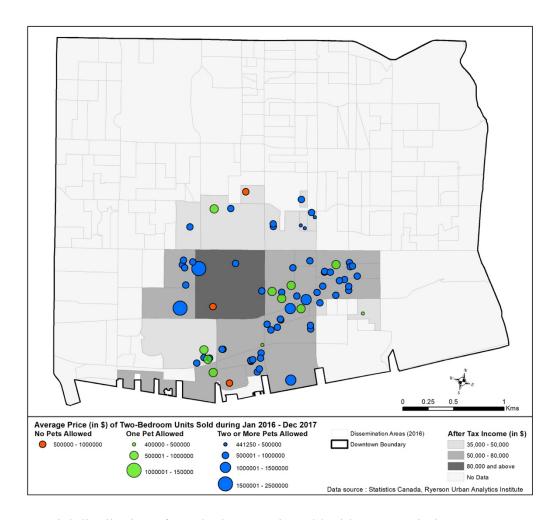


Figure 6: Spatial distribution of two-bedroom units sold with pet permissions

three buildings where pets are not allowed and spatially selected all those units or incidences of sale that are within this 500-meter buffer around the three buildings (Figure 8). I then created a variable "IsWithin500m" to hold value 1 if the unit is within the 500-meter buffer or 0 otherwise. I used this subset of the dataset to further analyze the impact of pet policy restrictions on condominium prices.

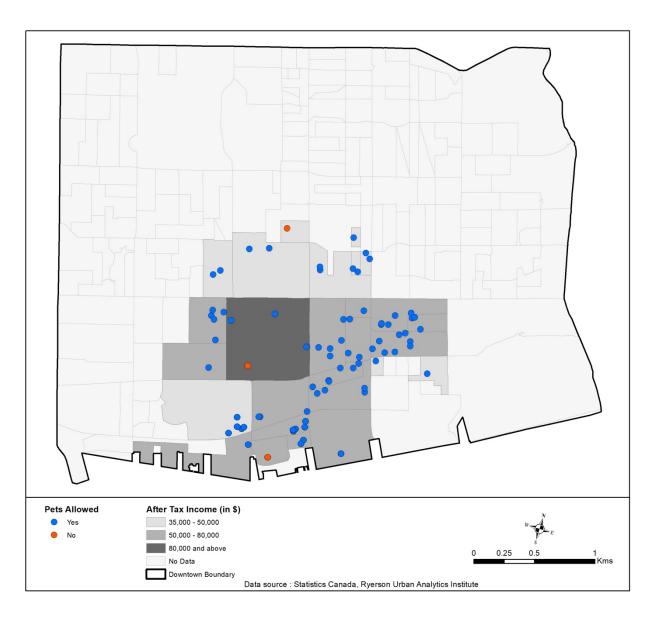


Figure 7: Spatial distribution of condominium sales in the study area with after-tax income in DAs

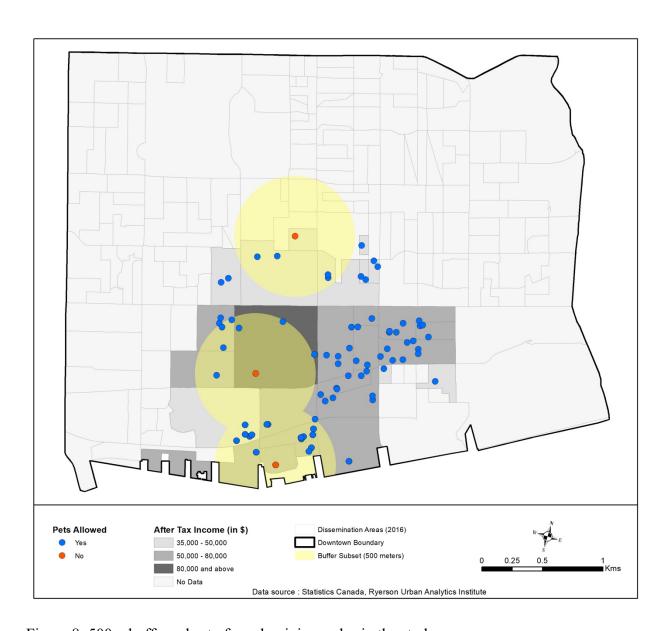


Figure 8: 500m buffer subset of condominium sales in the study area

4.5 Multicollinearity Diagnostics for 500m buffer data subset

As in the previous dataset, to test the presence of multicollinearity for the selected variables in the 500m buffer data subset, I have included a Pearson correlation matrix (Table 9) as well as the Variance Inflation Factors (VIF) (Table 10) of the estimated coefficients in the dataset.

Table 9: Pearson's correlations for 500m buffer data subset (1408 observations)

								Cori	relations									
	BR	WR	EXP	PT	LT	BT	SPD	DIS	PD	AI	IM	GV	PA	MP	MD	SCP	WSR	SP
BR	1																	
WR	.744**	1																
EXP	.112**	0.029	1															
PT	.196**	.224**	-0.002	1														
LT	.155**	.128**	0.047	.175**	1													
BT	.177**	.116**	0.042	0.012	.070**	1												
SPD	-0.050	110**	-0.028	069**	.075**	0.000	1											
DIS	064*	202**	0.037	120**	.125**	.178**	.345**	1										
PD	057*	241**	0.009	053*	0.050	.161**	.437**	.565**	1									
AI	.112**	.236**	0.048	0.042	-0.028	.082**	203**	250**	759**	1								
IM	059*	106**	0.017	-0.003	0.029	128**	.178**	.323**	.237**	342**	1							
GV	.059*	0.025	0.037	0.044	-0.044	.183**	086**	252**	412**	.515**	159**	1						
PA	-0.045	075**	.061*	066*	.060*	.442**	0.014	.181**	.165**	0.033	288**	0.030	1					
MP	0.028	0.003	0.043	-0.038	0.020	.374**	171**	-0.027	-0.024	.180**	243**	.084**	.736**	1				
MD	0.000	0.020	0.026	-0.042	.103**	.256**	0.008	135**	171**	.164**	-0.039	.212**	.621**	.744**	1			
SCP	-0.035	0.000	-0.035	086**	.118**	0.041	-0.039	.148**	156**	.115**	-0.040	189**	.358**	.359**	.363**	1		
WSR	.056*	0.032	-0.043	-0.015	-0.043	161**	.120**	134**	.072**	-0.019	385**	206**	. c	142**	375**	0.031	1	
SP	.493**	.661**	.075**	.171**	.122**	0.024	180**	235**	346**	.379**	197**	.114**	-0.004	.095**	.131**	.083**	.187**	1

^{**.} Correlation is significant at the 0.01 level (2-tailed). *. Correlation is significant at the 0.05 level (2-tailed). c. Cannot be computed because at least one of the variables is constant.

BR – Bedrooms, WR – Washrooms, EXP – Exposure, PT – Parking Type, LT – Locker, BT – Balcony, SPD – Speed, DIS – Distance to station, PD – Population Density, AI – After Tax Income, IM – Immigrants, GV – Green View Index, PA – Pet Allowed, MP – Maximum Pets Allowed, MD – Maximum Dogs Allowed, SCP – Small Caged Pets Allowed, WSR – Weight Size Restriction, SP – Sold Price

Table 10: Variance Inflation Factor of estimated coefficients in the 500m buffer data subset

Variables	VIF
Bedrooms	2.613
Washrooms	2.780
Exposure	1.040
Parking Type	1.119
Locker	1.122
Balcony	1.228
Speed	2.197
Distance to station	2.705
Population Density	6.573
After Tax Income	4.334
Immigrants	1.702
Green View Index	1.880
Pets Allowed	3.409
Maximum Pets Allowed	2.076
Maximum Dogs Allowed	3.200
Small Caged Pets Allowed	1.464
Weight Size Restriction	1.699

From Table 9, the Pearson correlation coefficients suggests the presence of mild but statistically significant correlation between the following pairs of variables: Bedrooms with washrooms, Washrooms with Sold price, Population Density with After Tax Income, Pets Allowed with Maximum Pets Allowed, Pets Allowed and Maximum Dogs Allowed and Maximum Pets Allowed with Maximum Dogs Allowed. However, the variance inflation factors from Table 10 for this model suggest that the presence of multicollinearity is mild or to an extent that does not invalidate the interpretation of coefficients. In all instances, variance inflation factors are below 5 except for the variable Population Density which has a VIF of 6.57 which is accepted with little concern since the VIF value is below 10. This suggests, that the presence of multicollinearity is only mild and does not pose a significant concern for the interpretation of this model.

4.6 Summary statistics for 500m buffer data subset

The descriptive statistics of the continuous explanatory variables used in the analysis is shown in Table 11 with separate statistics for Pets Allowed units and Pets Not Allowed units. From Table 11, we can see that there are 1408 condominium sales in downtown Toronto that are within 500m proximity to the three buildings that do not allow pets, out of which 1325 units allow pets and 83 units do not allow pets. The average price of condominiums that allow pets is \$5,484 less compared to condominiums that do not allow pets with a standard deviation of \$335,126 and \$159,684 respectively. The minimum number of bedrooms in condominiums where pets are allowed is 0 whereas in condominiums where pets are not allowed is 1. However, the minimum and maximum number of washrooms remain the same for both pets allowed and pets not allowed units. The average speed limit and green view index of the units are approximately the same in both sets. The average distance to subway station increases by approximately 100 meters in the condominium buildings where pets are allowed. It is to be noted that the percentage of

immigrants is 7 percent higher in condominiums where pets are not allowed compared to condominiums where pets are allowed. The average after tax income is \$2,818 less in condominiums where pets are not allowed compared to condominiums that allow pets while population density is less in condominiums that do not allow pets.

Table 11: Descriptive statistics of condominium sales data within 500m buffer

	Pets Allowed (1325 units)						
Variables	Mean	SD	Min	Max			
Bedrooms	1.33	.56	0	2			
Washrooms	1.47	.58	1	3			
Sold Price	598212	335126	232000	4150000			
Green View Index	7.40	4.40	2.11	17.58			
Speed	48.71	9.15	40	60			
Distance	.38	.12	.14	.59			
Immigrants	42.27	5.59	32.30	54.37			
After Tax Income	61350.19	19121.33	35422	108037			
Population Density	16431.22	5398.81	2628.02	21272.25			
	Pets N	Not Allowed (83 un	nits)				
Bedrooms	1.43	.49	1	2			
Washrooms	1.65	.52	1	3			
Sold Price	603696	159684	375000	1100000			
Green View Index	6.85	2.34	4.85	12.61			
Speed	48.19	3.87	40	50			
Distance	.28	.16	.18	.63			
Immigrants	49.48	6.60	38.74	54.37			
After Tax Income	58532.20	30732.52	35422	108037			
Population Density	12562.67	6047.54	2628.02	19449.50			

The descriptive statistics of categorical variables used in the statistical analysis for 500m buffer data subset is presented in Table 12. The condominiums with south east (SE) exposure have the highest average price where pets are allowed with a standard deviation of \$370,410 whereas in pets not allowed buildings, the highest average price is for condominiums with south west (SW) exposure with a standard deviation of \$198,997. In the case of parking type variable, the highest average price is for underground parking for both sets of data. The condominiums with owned

lockers sell for higher price than those with no lockers in both datasets. The condominiums with balcony type "Terrace" have the highest average price where pets are allowed. However, there are no units with terrace balcony where pets are not allowed. In condominiums where pets are not allowed, the highest price is for condominiums with enclosed balcony. There are no 0-bedroom units in buildings where pets are not allowed in the dataset. However, the average price increases with increase in number of bedrooms as well as number of washrooms. A 2-bedroom condominium where pets are allowed has an average price of \$809,909 with a standard deviation of \$442,850, whereas a 2-bedroom condominium where pets are not allowed has an average price of \$722,476 with a standard deviation of \$158,971. The average price of a 3-washroom condominium where pets are allowed is \$1,777,721 with a standard deviation of \$670,710 whereas the average price of a 3-washroom condominium where pets are not allowed is \$975,000 with a standard deviation of \$176,776.

Table 12: Descriptive statistics of categorical variables used for analysis within 500m buffer

EXPOSURE	Mean	Mean	SD	SD	N	N
EAPOSURE	Pets YES	Pets No	Pets YES	Pets No	Pets YES	Pets No
East	550298	593683	267337	141085	186	13
North	470171	503692	159373	106279	182	13
NE	708143	585122	455493	75196	133	11
NW	707445	658571	380185	180257	98	14
South	535586	527275	232516	102295	210	10
SE	714676	600625	370410	92669	166	8
SW	675145	792163	398705	198997	160	11
West	537153	464333	319886	35795	190	3
Parking	Mean	Mean	SD	SD	N	N
Type	Pets YES	Pets No	Pets YES	Pets No	Pets YES	Pets No
None	459117	496500	128254	70135	193	4
Underground	621927	609123	353295	161240	1132	79
Locker	Mean	Mean	SD	SD	N	N
Locker	Pets YES	Pets No	Pets YES	Pets No	Pets YES	Pets No
None	554196	568474	313536	108441	598	48
Owned	634417	651999	347953	202704	727	35

Table 12 Continued

Dalaany	Mean	Mean	SD	SD	N	N
Balcony	Pets YES	Pets No	Pets YES	Pets No	Pets YES	Pets No
Enclosed	452488	742100	101644	212991	91	10
None	625896	580953	493571	144884	168	69
Open	603075	650000	305997	80415	1023	4
Terrace	682743		462850		43	0
Bedrooms	Mean	Mean	SD	SD	N	N
Deurooms	Pets YES	Pets No	Pets YES	Pets No	Pets YES	Pets No
0	328213		43773		65	0
1	482890	512715	135221	82021	762	47
2	809909	722476	442850	158971	498	36
Washrooms	Mean	Mean	SD	SD	N	N
vv asiir oonis	Pets YES	Pets No	Pets YES	Pets No	Pets YES	Pets No
1	461732	512895	108845	114409	764	31
2	669502	645140	181501	146370	503	50
3	1777721	975000	670710	176776	58	2

To analyze the impact of my primary variables of interest in the condominium price, I tabulated them in Table 13 for initial descriptive analysis with the data subset. Table 13 demonstrates that the average price of condominiums that allow pets is \$598,212 while those do not allow pets have an average price of \$603,696. It may be noted that the average price of the condominiums that allow pets has increased by \$26,859 in this data subset compared to the initial dataset.

Condominiums where the number of dogs allowed is 2 or more has an average price of \$645,231. The average price of a condominium where 2 or more pets are allowed is \$622,672 whereas the average price of a condominium where 2 or more dogs are allowed is \$645,231. The number of sales for Maximum Dogs Allowed where 2 or more dogs are allowed is 795 whereas the number of sales for Maximum Pets Allowed where 2 or more pets allowed is 1057. This is due to the fact that out of the 1057 condominiums where 2 or more pets are allowed, 262 of them allow only 1 dog. Therefore, the number of sales is higher at 530 for condominiums that allow only 1 dog compared to 268 sales for condominiums that allow only 1 pet. Condominiums where

small or caged pets are allowed were sold at an average price of \$617,522. However, the condominiums that were sold for the highest price were those that had weight or size restriction with an average price of \$657,196 and the lowest average price was \$501,741 which was for the condominiums that allow only 1 pet.

Table 13: Impact of Pet policy variables on Sold Price within 500m buffer

	Sold Price and	d Pets Allowed	
Pets Allowed	Mean	SD	N
Yes	598212	335126	1325
No	603696	159684	83
	Sold Price and Max	imum Dogs Allowed	
Maximum Dogs	Mean	SD	N
Allowed			
0	603696	159684	83
1	527683	160863	530
2+	645231	405588	795
	Sold Price and Max	ximum Pets Allowed	
Maximum Pets	Mean	SD	N
Allowed			
0	603696	159684	83
1	501741	131505	268
2+	622672	365347	1057
	Sold Price and Smal	l Caged Pets Allowed	
Small Caged Pets	Mean	SD	\mathbf{N}
Allowed			
Yes	617522	379596	946
No	559658	171652	462
	Sold Price and Wei	ght Size Restriction	
Weight Size	Mean	SD	N
Restriction			
Yes	657196	431418	704
No	531344	142714	621

5. Hedonic Analysis

I used the hedonic price model to analyze the impact of pet policy restrictions in condominium price in downtown Toronto. Keeping the Sold Price as the dependent variable and, condominium and neighbourhood characteristic variables as the independent variables, five separate models were estimated for each pet-policy related variables for analysis. Using the full dataset with 2733 condominium sales in downtown Toronto, the first model specification is

$$P = \beta_0 + \beta_1 C + \beta_2 N + \beta_3 Pets Allowed + \varepsilon$$

where P is the sold price of condominium, C denotes the condominium characteristic variables, N denotes the neighbourhood characteristic variables, Pets Allowed indicates whether pets are allowed or not on the property, betas (β) are the regression coefficients that explain the relationship between sold price and the explanatory variables and epsilon (ε) is the error term that accounts for what has not been captured by the model. This model examines the impact of the variable "Pets Allowed" in condominium price.

The second model specification is

$$P = \beta_0 + \beta_1 C + \beta_2 N + \beta_3 Max Pets Allowed + \varepsilon$$

where Maximum Pets Allowed is used to inspect how the allowance of a higher or a lower number of pets impacts the condominium price.

Similarly, to find out how the allowance of a higher or a lower number of dogs impacts the condominium price, the third model specification can be written as

$$P = \beta_0 + \beta_1 C + \beta_2 N + \beta_3 Max Dogs Allowed + \varepsilon$$

where Maximum Dogs Allowed denotes the maximum number of dogs allowed in the condominium.

A fourth model specification is formulated using the variable "Small Caged Pets Allowed" to examine the impact of allowance of small or caged pets like birds, mice, guinea pigs, hamster etc., on the condominium price value. The model specification for this can be written as

$$P = \beta_0 + \beta_1 C + \beta_2 N + \beta_3 Small Caged Pets Allowed + \varepsilon$$

Similarly, a fifth and final model specification is formulated using the variable "Weight Size Restriction" to estimate how different weight, size or breed restriction policies, for example, only pets that are less than 35 pounds allowed, two cats but only one dog allowed, a maximum of 50 Gallon of water in fish tank allowed, only two caged birds allowed etc., impact the condominium price. This is an important model since it has stricter and well-defined pet policies in place for the condominiums. The model specification for this is

$$P = \beta_0 + \beta_1 C + \beta_2 N + \beta_3 Weight Size Restriction + \varepsilon$$
.

The above mentioned five models were run again for analysis with a subset of the dataset obtained from the 500m buffer. The dependent variable was log transformed for the five models and conducted the analysis again to get the percent change in sold price. The hedonic models were run using SPSS while utilizing the *all else being equal* property of the regression models. This property of the regression models allows us to isolate the effect of one particular influence by controlling the impact of others (Haider, 2015).

6. Results

The empirical results for all models obtained after conducting the hedonic analysis are discussed below.

Model-1 - using variable of interest "Pets Allowed"

The empirical results obtained after running the first model are presented in Table 14. The R-squared value for this model is 0.648 for 2733 observations which suggests that the model explains 64.8 percent of variance in sold price. The coefficient for Pets Allowed in the model is positive with the value of \$4,564. However, the T-statistic at 0.217 suggests that the relationship is statistically insignificant. This leads us to conclude that all else being equal, Pets Allowed variable may not have an impact on the sale price of condominiums while controlling for other determinants of price.

Table 14: Regression results for Model-1

Variables	Coefficient β	T-statistic	Sig.
Intercept	1572643.351	33.366	0.000
[Bedrooms=0]	-254857.356	-12.571	0.000
[Bedrooms=1]	-119562.029	-11.240	0.000
[Bedrooms=2]	0^{a}		
[Washrooms=1]	-1025493.842	-43.834	0.000
[Washrooms=2]	-924074.445	-42.856	0.000
[Washrooms=3]	0^{a}		
[Exposure=E]	-32876.229	-2.918	0.004
[Exposure=N]	-40313.369	-3.445	0.001
[Exposure=NE]	7997.349	0.548	0.584
[Exposure=NW]	11103.400	0.734	0.463
[Exposure=S]	-4733.318	-0.415	0.678
[Exposure=SE]	9375.852	0.713	0.476
[Exposure=SW]	38260.286	2.896	0.004
[Exposure=W]	0^{a}		
[Parking Type=None]	-38656.309	-4.135	0.000
[Parking Type=Underground]	0^{a}		
[Locker=None]	-41786.851	-6.158	0.000

Table 14 Continued

Variables	Coefficient β	T-statistic	Sig.
[Locker=Owned]	Oa		
[Balcony=Enclosed]	-25877.123	-1.331	0.183
[Balcony=None]	-20876.181	-1.187	0.235
[Balcony=Open]	-41807.012	-2.627	0.009
[Balcony=Terrace]	0 ^a		
[Pets Allowed=No]	4564.303	0.217	0.828
[Pets Allowed=Yes]	0^{a}		
Speed	-1652.369	-4.593	0.000
Distance	-97718.047	-5.590	0.000
Population Density	7.276	7.647	0.000
After Tax Income	2.248	8.991	0.000
Immigrants	-903.499	-1.523	0.128
Green View Index	2128.295	3.185	0.001
Observations		2733	
R-Squared		0.648	

^a. This parameter is set to zero because it is redundant.

Model-2 – using variable of interest "Maximum Pets Allowed"

The empirical results obtained after running the second model are presented in Table 15. This model analyses the impact of number of pets allowed in condominium on its price. The coefficient of determination (R-squared) explains 65 percent variance in sold prices. The t-value for a maximum of 1 or more pets allowed is greater than 1.96 and therefore it is statistically significant. This suggests that all else being equal, Maximum Pets Allowed variable has an impact on the condominium prices while controlling for other determinants of price. The coefficients for Maximum Pets Allowed is negative with value -\$36,082 for condominiums that allow only 1 pet. This suggests that condominiums that allow 2 or more pets has a premium on condominium prices compared to others that allow less than two.

Table 15: Regression results for Model 2

Variables	Coefficient β	T-statistic	Sig.
Intercept	1569364.089	33.371	0.000
[Bedrooms=0]	-255904.721	-12.652	0.000
[Bedrooms=1]	-120684.304	-11.369	0.000
[Bedrooms=2]	0^{a}		
[Washrooms=1]	-1025494.747	-43.939	0.000
[Washrooms=2]	-924656.629	-42.985	0.000
[Washrooms=3]	0^{a}		
[Exposure=E]	-32858.495	-2.924	0.003
[Exposure=N]	-41074.827	-3.518	0.000
[Exposure=NE]	8589.029	0.590	0.555
[Exposure=NW]	12029.074	0.797	0.425
[Exposure=S]	-4577.216	-0.402	0.688
[Exposure=SE]	9630.949	0.734	0.463
[Exposure=SW]	39909.211	3.027	0.002
[Exposure=W]	0^{a}		
[Parking Type=None]	-40307.428	-4.317	0.000
[Parking Type=Underground]	0^{a}		
[Locker=None]	-41300.643	-6.100	0.000
[Locker=Owned]	0^{a}		
[Balcony=Enclosed]	-21368.985	-1.099	0.272
[Balcony=None]	-15005.970	-0.852	0.394
[Balcony=Open]	-40412.605	-2.545	0.011
[Balcony=Terrace]	0^{a}		
[Maximum Pets Allowed =0]	-5620.872	-0.266	0.790
[Maximum Pets Allowed =1]	-36082.769	-3.746	0.000
[Maximum Pets Allowed =2+]	0^{a}		
Speed	-1498.435	-4.148	0.000
Distance	-98245.256	-5.633	0.000
Population Density	7.297	7.688	0.000
After Tax Income	2.152	8.585	0.000
Immigrants	-758.606	-1.279	0.201
Green View Index	2020.433	3.028	0.002
Observations		2733	
R-Squared		0.650	

^a. This parameter is set to zero because it is redundant.

Model-3 – using variable of interest "Maximum Dogs Allowed"

The empirical results obtained after running the third model using the variable "Maximum Dogs Allowed" are presented in Table 16. This model offers a good fit for the analysis as it explains 65.3 percent variance in sold prices. As in the previous model with "Maximum Pets Allowed", the coefficients of interest for this model is negative and implies that the condominiums that allow the 2 or more dogs in their properties sell for higher price than the others. The t-value for a maximum of 1 dog allowed is 6.31 and is statistically significant. Hence, we can conclude from this model that all else being equal, number of dogs allowed in a condominium impacts its price value, while controlling for other determinants of price.

Table 16: Regression results for Model 3

Variables	Coefficient β	T-statistic	Sig.
Intercept	1600488.359	34.049	0.000
[Bedrooms=0]	-259291.270	-12.874	0.000
[Bedrooms=1]	-123344.633	-11.660	0.000
[Bedrooms=2]	O ^a		
[Washrooms=1]	-1021605.431	-43.964	0.000
[Washrooms=2]	-922790.421	-43.100	0.000
[Washrooms=3]	0 ^a		
[Exposure=E]	-33779.717	-3.020	0.003
[Exposure=N]	-36981.498	-3.179	0.001
[Exposure=NE]	12092.514	0.834	0.404
[Exposure=NW]	13102.639	0.873	0.383
[Exposure=S]	1075.129	0.095	0.925
[Exposure=SE]	16224.857	1.239	0.216
[Exposure=SW]	41364.812	3.151	0.002
[Exposure=W]	O ^a		
[Parking Type=None]	-42100.900	-4.528	0.000
[Parking Type=Underground]	O ^a		
[Locker=None]	-36608.025	-5.394	0.000
[Locker=Owned]	0 ^a		
[Balcony=Enclosed]	-18592.366	-0.961	0.337
[Balcony=None]	-15572.425	-0.891	0.373
[Balcony=Open]	-36675.579	-2.318	0.021

Table 16 continued

Variables	Coefficient β	T-statistic	Sig.		
[Balcony=Terrace]	0^{a}				
[Maximum Dogs Allowed=0]	-9190.726	-0.439	0.661		
[Maximum Dogs Allowed=1]	-47014.253	-6.313	0.000		
[Maximum Dogs Allowed=2+]	0^{a}				
Speed	-1757.534	-4.915	0.000		
Distance	-99220.251	-5.716	0.000		
Population Density	7.584	8.017	0.000		
After Tax Income	2.033	8.113	0.000		
Immigrants	-1077.123	-1.827	0.068		
Green View Index	1724.200	2.587	0.010		
Observations	2733				
R-Squared	0.653				

^a. This parameter is set to zero because it is redundant.

Model-4 – using variable of interest "Small Caged Pets Allowed"

The empirical results obtained after running the fourth model using the variable "Small Caged Pets Allowed" are presented in Table 17. It explains 65 percent variance in sold prices and offers a good fit for the analysis. The t-value obtained for the coefficient of interest "Small Caged Pets Allowed" in this model is 1.748 and is statistically insignificant at 5 percent level. However, it is significant at 10 percent level.

Table 17: Regression results for Model 4

Variables	Coefficient β	T-statistic	Sig.
Intercept	1571527.847	33.538	0.000
[Bedrooms=0]	-254297.319	-12.561	0.000
[Bedrooms=1]	-118487.439	-11.137	0.000
[Bedrooms=2]	Oa		
[Washrooms=1]	-1024744.456	-43.819	0.000
[Washrooms=2]	-922391.517	-42.794	0.000
[Washrooms=3]	Oa		
[Exposure=E]	-32792.168	-2.914	0.004
[Exposure=N]	-39803.263	-3.409	0.001
[Exposure=NE]	7746.375	0.532	0.595

Table 17 continued

Variables	Coefficient β	T-statistic	Sig.
[Exposure=NW]	12071.826	0.802	0.423
[Exposure=S]	-4657.729	-0.409	0.683
[Exposure=SE]	10850.772	0.825	0.409
[Exposure=SW]	39757.008	3.010	0.003
[Exposure=W]	0^{a}		
[Parking Type=None]	-39326.652	-4.210	0.000
[Parking Type=Underground]	0^{a}		
[Locker=None]	-40655.842	-5.976	0.000
[Locker=Owned]	0^{a}		
[Balcony=Enclosed]	-26934.114	-1.388	0.165
[Balcony=None]	-20041.009	-1.148	0.251
[Balcony=Open]	-41952.953	-2.637	0.008
[Balcony=Terrace]	0^{a}		
[Small Caged Pets Allowed=No]	-14300.788	-1.748	0.081
[Small Caged Pets Allowed=Yes]	0^{a}		
Speed	-1484.880	-3.992	0.000
Distance	-104190.288	-5.841	0.000
Population Density	7.080	7.489	0.000
After Tax Income	2.160	8.498	0.000
Immigrants	-812.264	-1.437	0.151
Green View Index	2420.011	3.514	0.000
Observations	2733		
R-Squared	0.649		

^a. This parameter is set to zero because it is redundant.

Model-5 – using variable of interest "Weight Size Restriction"

The empirical results obtained after running the fifth model using the variable "Weight Size Restriction" are presented in Table 18. The R-squared value suggests that the model explains 65 percent variance in sold prices. The coefficient for "Weight Size Restriction" in this model is positive with a value of \$5,818. However, the t-value for it is 0.775 and hence it is statistically insignificant. Therefore, we can conclude that all else being equal, "Weight Size Restriction" may not have an impact on condominium prices in this model.

Table 18: Regression results for Model 5

Variables	Coefficient \beta	T-statistic	Sig.
Intercept	1589564.392	33.396	0.000
[Bedrooms=0]	-251305.566	-12.281	0.000
[Bedrooms=1]	-117160.300	-10.657	0.000
[Bedrooms=2]	0^{a}		
[Washrooms=1]	-1048935.670	-43.642	0.000
[Washrooms=2]	-946080.106	-42.329	0.000
[Washrooms=3]	0^{a}		
[Exposure=E]	-35836.383	-3.147	0.002
[Exposure=N]	-41261.806	-3.471	0.001
[Exposure=NE]	11471.859	0.769	0.442
[Exposure=NW]	17061.353	1.095	0.274
[Exposure=S]	-5946.479	-0.515	0.607
[Exposure=SE]	9269.473	0.694	0.488
[Exposure=SW]	39511.910	2.938	0.003
[Exposure=W]	0^{a}		
[Parking Type=None]	-37167.917	-3.937	0.000
[Parking Type=Underground]	0^{a}		
[Locker=None]	-42692.244	-6.178	0.000
[Locker=Owned]	0^{a}		
[Balcony=Enclosed]	-21143.486	-1.069	0.285
[Balcony=None]	-19426.432	-1.093	0.274
[Balcony=Open]	-40497.975	-2.533	0.011
[Balcony=Terrace]	0^{a}		
[Weight Size Restriction=No]	5818.466	0.775	0.439
[Weight Size Restriction=Yes]	0^{a}		
Speed	-1597.489	-4.367	0.000
Distance	-101159.698	-5.481	0.000
Population Density	7.387	7.612	0.000
After Tax Income	2.325	8.862	0.000
Immigrants	-1124.504	-1.869	0.062
Green View Index	2115.479	3.094	0.002
Observations	2733		
R-Squared	0.654		

^a. This parameter is set to zero because it is redundant.

Model-6 (500m buffer) – using variable of interest "Pets Allowed"

The empirical results obtained after running the sixth model with 1408 observations from the 500m buffer data subset are presented in Table 19. The R-squared value obtained for this model is at 69.8 percent for 1408 observations and offers a good fit for the analysis. The coefficient for "Pets Allowed" in the model is negative with the value of -\$20,289. However, the t-statistic at 0.805 suggests that the relationship is statistically insignificant in this model. Therefore, we can conclude that all else being equal, the variable "Pets Allowed" may not have an impact on condominium prices.

Table 19: Regression results for Model 6

Variables	Coefficient β	T-statistic	Sig.
Intercept	1844145.444	22.935	0.000
[Bedrooms=0]	-222004.616	-7.384	0.000
[Bedrooms=1]	-92568.888	-5.175	0.000
[Bedrooms=2]	0^{a}		
[Washrooms=1]	-1144046.832	-33.619	0.000
[Washrooms=2]	-1043616.384	-35.930	0.000
[Washrooms=3]	0^{a}		
[Exposure=E]	-78422.740	-4.200	0.000
[Exposure=N]	-51945.511	-2.771	0.006
[Exposure=NE]	5767.983	0.274	0.784
[Exposure=NW]	566.402	0.025	0.980
[Exposure=S]	-34618.685	-1.906	0.057
[Exposure=SE]	-10360.862	-0.518	0.605
[Exposure=SW]	14771.965	0.734	0.463
[Exposure=W]	0^{a}		
[Parking Type=None]	-29568.229	-2.000	0.046
[Parking Type=Underground]	0^{a}		
[Locker=None]	-45794.316	-4.490	0.000
[Locker=Owned]	0^{a}		
[Balcony=Enclosed]	-37322.541	-1.067	0.286
[Balcony=None]	8672.251	0.273	0.785
[Balcony=Open]	-92053.806	-3.228	0.001
[Balcony=Terrace]	0^{a}		
[Pets Allowed=No]	-20289.994	-0.805	0.421

Table 19 continued

Variables	Coefficient β	T-statistic	Sig.
[Pets Allowed=Yes]	0^{a}		
Speed	-1854.670	-2.820	0.005
Distance	-24315.305	-0.409	0.682
Population Density	6.253	3.130	0.002
After Tax Income	1.777	3.577	0.000
Immigrants	-3503.521	-3.398	0.001
Green View Index	4049.864	2.827	0.005
Observations		1408	
R-Squared		0.698	

^a. This parameter is set to zero because it is redundant.

Model-7 (500m buffer) – using variable of interest "Maximum Pets Allowed"

The empirical results obtained after running the seventh model with 1408 observations from the 500m buffer data subset are presented in Table 20. This model using the variable of interest "Maximum Pets Allowed" explains 70 percent variance in sold prices and offers a decent fit for the analysis. The coefficient for "Maximum Pets Allowed" in this model is negative with a value of -\$39,346. The t-value at 2.86 suggests that the relationship is statistically significant. Hence from this model, we can see that the condominiums that allow 2 or more pets sell for higher price than those allow a smaller number of pets. In other words, a premium of \$39,346 is added when you choose a condominium that allow 2 or more pets compared to a condominium that allow only 1 pet. From this model, we can conclude that all else being equal, "Maximum Pets Allowed" variable has an impact on condominium prices, while controlling for other determinants of price.

Table 20: Regression results for Model 7

Variables	Coefficient \beta	T-statistic	Sig.
Intercept	1873234.640	23.171	0.000
[Bedrooms=0]	-218916.753	-7.295	0.000
[Bedrooms=1]	-87124.884	-4.856	0.000
[Bedrooms=2]	0^{a}		
[Washrooms=1]	-1152502.333	-33.827	0.000
[Washrooms=2]	-1048673.340	-36.131	0.000
[Washrooms=3]	0^{a}		
[Exposure=E]	-78611.995	-4.221	0.000
[Exposure=N]	-55761.447	-2.974	0.003
[Exposure=NE]	3468.076	0.165	0.869
[Exposure=NW]	-158.747	-0.007	0.994
[Exposure=S]	-38903.806	-2.140	0.033
[Exposure=SE]	-10778.538	-0.540	0.589
[Exposure=SW]	14971.258	0.746	0.456
[Exposure=W]	0^{a}		
[Parking Type=None]	-31193.560	-2.114	0.035
[Parking Type=Underground]	0^{a}		
[Locker=None]	-45711.522	-4.494	0.000
[Locker=Owned]	0^{a}		
[Balcony=Enclosed]	-31525.467	-0.902	0.367
[Balcony=None]	11855.386	0.373	0.709
[Balcony=Open]	-91196.066	-3.206	0.001
[Balcony=Terrace]	0^{a}		
[Maximum Pets Allowed =0]	-27113.631	-1.073	0.283
[Maximum Pets Allowed =1]	-39346.564	-2.862	0.004
[Maximum Pets Allowed =2+]	0^{a}		
Speed	-1462.151	-2.182	0.029
Distance	14060.489	0.231	0.817
Population Density	5.491	2.732	0.006
After Tax Income	1.422	2.785	0.005
Immigrants	-3981.466	-3.821	0.000
Green View Index	4524.387	3.146	0.002
Observations	1408		
R-Squared	0.700		

^a. This parameter is set to zero because it is redundant.

Model-8 (500m buffer) – using variable of interest "Maximum Dogs Allowed"

The empirical results obtained after running the eighth model with 1408 observations from the 500m buffer data subset are presented in Table 21. The goodness-of-fit of the model is 0.704 which suggests that the model explains 70 percent of variance in sold price. The t-value at 5.27 suggests that the relationship is statistically significant. The coefficient for "Maximum Dogs Allowed" in this model is negative with a value of -\$66,430 where maximum number of dogs allowed is 1. Therefore, we can say that the price of a condominium where only 1 dog is allowed sell at a discounted price with a price difference of \$66,430 than a condominium that allow 2 or more dogs. Hence from this model, we can conclude that all else being equal, "Maximum Dogs Allowed" variable has a significant impact on condominium prices, while controlling for other determinants of price.

Table 21: Regression results for Model 8

Variables	Coefficient β	T-statistic	Sig.
Intercept	1901042.378	23.654	0.000
[Bedrooms=0]	-217971.831	-7.317	0.000
[Bedrooms=1]	-85531.167	-4.814	0.000
[Bedrooms=2]	0^{a}		
[Washrooms=1]	-1144415.435	-33.953	0.000
[Washrooms=2]	-1039079.875	-36.102	0.000
[Washrooms=3]	0^{a}		
[Exposure=E]	-78487.514	-4.244	0.000
[Exposure=N]	-49835.913	-2.683	0.007
[Exposure=NE]	6899.210	0.331	0.741
[Exposure=NW]	-1895.114	-0.084	0.933
[Exposure=S]	-32563.129	-1.809	0.071
[Exposure=SE]	-188.607	-0.009	0.992
[Exposure=SW]	16106.622	0.808	0.419
[Exposure=W]	0^{a}		
[Parking Type=None]	-34745.560	-2.367	0.018
[Parking Type=Underground]	0^{a}		
[Locker=None]	-38480.025	-3.774	0.000

Table 21 continued

Variables	Coefficient β	T-statistic	Sig.
[Locker=Owned]	0^{a}		
[Balcony=Enclosed]	-30174.321	-0.871	0.384
[Balcony=None]	14944.613	0.474	0.636
[Balcony=Open]	-88216.526	-3.122	0.002
[Balcony=Terrace]	0^{a}		
[Maximum Dogs Allowed=0]	-18506.709	-0.741	0.459
[Maximum Dogs Allowed=1]	-66430.426	-5.272	0.000
[Maximum Dogs Allowed=2+]	0^{a}		
Speed	-2580.434	-3.876	0.000
Distance	60274.002	0.988	0.323
Population Density	8.700	4.281	0.000
After Tax Income	1.981	4.014	0.000
Immigrants	-5579.213	-5.097	0.000
Green View Index	3181.103	2.227	0.026
Observations		1408	
R-Squared	0.704		

^a. This parameter is set to zero because it is redundant.

Model-9 (500m buffer) – using variable of interest "Small Caged Pets Allowed"

The empirical results obtained after running the ninth model with 1408 observations from the 500m buffer data subset are presented in Table 22. The model obtained a R-squared value that explained 69.9 percent of the variance in condominium sale price and offers a good fit for the analysis. The t-value at 2.73 implies that the relationship is statistically significant. The coefficient for "Small Caged Pets Allowed" in this model is negative with a value of -\$32,603 for condominiums that do not allow small or caged pets on their properties. Therefore, we can say that the condominiums that allow small or caged pets sell at higher prices than the ones that do not allow them. Hence, from this model we can conclude that all else being equal, the variable "Small Caged Pets Allowed" has a significant impact on condominium prices, while controlling for other determinants of price.

Table 22: Regression results for Model 9

Variables	Coefficient \beta	T-statistic	Sig.
Intercept	1832635.655	23.018	0.000
[Bedrooms=0]	-220492.090	-7.362	0.000
[Bedrooms=1]	-87866.655	-4.901	0.000
[Bedrooms=2]	0^{a}		
[Washrooms=1]	-1147432.609	-33.803	0.000
[Washrooms=2]	-1042908.308	-36.113	0.000
[Washrooms=3]	0^{a}		
[Exposure=E]	-78377.173	-4.216	0.000
[Exposure=N]	-52993.153	-2.846	0.004
[Exposure=NE]	1950.589	0.093	0.926
[Exposure=NW]	1994.604	0.088	0.930
[Exposure=S]	-38144.793	-2.108	0.035
[Exposure=SE]	-9391.562	-0.471	0.638
[Exposure=SW]	17287.919	0.862	0.389
[Exposure=W]	0^{a}		
[Parking Type=None]	-31011.041	-2.102	0.036
[Parking Type=Underground]	0 ^a		
[Locker=None]	-43285.889	-4.238	0.000
[Locker=Owned]	O ^a		
[Balcony=Enclosed]	-43545.704	-1.259	0.208
[Balcony=None]	7092.062	0.228	0.820
[Balcony=Open]	-95443.304	-3.355	0.001
[Balcony=Terrace]	0 ^a		
[Small Caged Pets Allowed=No]	-32603.611	-2.734	0.006
[Small Caged Pets Allowed=Yes]	O ^a		
Speed	-1955.588	-2.978	0.003
Distance	-59437.701	-0.980	0.327
Population Density	8.037	3.868	0.000
After Tax Income	1.866	3.758	0.000
Immigrants	-3564.109	-3.630	0.000
Green View Index	5248.316	3.510	0.000
Observations	1408		
R-Squared	0.699		

^a. This parameter is set to zero because it is redundant.

Model-10 (500m buffer) – using variable of interest "Weight Size Restriction"

The empirical results obtained after running the tenth model with 1408 observations from the 500m buffer data subset are presented in Table 23. This model explains 71 percent of the variance of condominium prices and offers a decent fit for the analysis. The t-value at 2.36 for the variable "Weight Size Restriction" suggests that the relationship is statistically significant at 5 percent level. The coefficient of the variable "Weight Size Restriction" in this model is negative with a value of -\$30,069 where there are no weight or size restriction for the condominiums. Hence, we can say that a condominium that has a weight, size or breed restriction sell for higher prices than those that do not have these restrictions. Therefore, all else being equal, the variable "Weight Size Restriction" has a significant impact on sale price of condominiums, while controlling for other determinants of price.

Table 23: Regression results for Model 10

Variables	Coefficient β	T-statistic	Sig.
Intercept	1857283.915	22.863	0.000
[Bedrooms=0]	-196484.482	-6.315	0.000
[Bedrooms=1]	-71333.112	-3.657	0.000
[Bedrooms=2]	Oa		
[Washrooms=1]	-1180939.751	-33.190	0.000
[Washrooms=2]	-1062611.550	-34.225	0.000
[Washrooms=3]	0 ^a		
[Exposure=E]	-88830.730	-4.655	0.000
[Exposure=N]	-60033.019	-3.138	0.002
[Exposure=NE]	4689.410	0.217	0.828
[Exposure=NW]	10815.236	0.453	0.651
[Exposure=S]	-39478.628	-2.137	0.033
[Exposure=SE]	-15809.676	-0.775	0.439
[Exposure=SW]	11401.717	0.556	0.579
[Exposure=W]	0 ^a		
[Parking Type=None]	-27563.410	-1.836	0.067
[Parking Type=Underground]	0 ^a		
[Locker=None]	-49983.348	-4.737	0.000

Table 23 continued

Variables	Coefficient $oldsymbol{eta}$	T-statistic	Sig.
[Locker=Owned]	0^{a}		
[Balcony=Enclosed]	-47704.232	-1.322	0.186
[Balcony=None]	-315.135	-0.010	0.992
[Balcony=Open]	-98902.379	-3.462	0.001
[Balcony=Terrace]	0^{a}		
[Weight Size Restriction=No]	-30069.147	-2.359	0.018
[Weight Size Restriction=Yes]	0^{a}		
Speed	-2096.181	-2.987	0.003
Distance	22877.635	0.366	0.715
Population Density	5.924	2.870	0.004
After Tax Income	1.861	3.596	0.000
Immigrants	-3163.889	-2.785	0.005
Green View Index	5167.965	3.440	0.001
Observations	1408		
R-Squared		0.712	

^a. This parameter is set to zero because it is redundant.

Model-11 (Full dataset with log transformed Sold Price with variable of interest "Pets Allowed")

The empirical results obtained after running the eleventh model with full dataset of 2733 observations with log transformed sold price are presented in Table 24. The R-squared value at 0.67 suggests that the model explains 67 percent of the variance of condominium prices. The t-value for the variable of interest "Pets Allowed" is 2.52 and therefore the relationship is statistically significant at 5 percent level. The coefficient for "Pets Allowed" in this model is positive with a value of 0.064 for condominiums that do not allow pets. This suggests that condominiums in buildings that do not allow pets sell for 6.4 percent higher than those allow pets. Hence from this model, we may conclude that all else being equal, the variable "Pets Allowed" has a significant impact on condominium prices, while controlling for other determinants of price.

Table 24: Regression results for Model 11

Variables	Coefficient \beta	T-statistic	Sig.
Intercept	14.069	244.905	0.000
[Bedrooms=0]	-0.545	-22.076	0.000
[Bedrooms=1]	-0.198	-15.291	0.000
[Bedrooms=2]	0^a		
[Washrooms=1]	-0.946	-33.179	0.000
[Washrooms=2]	-0.768	-29.216	0.000
[Washrooms=3]	0^{a}		
[Exposure=E]	-0.036	-2.633	0.009
[Exposure=N]	-0.065	-4.583	0.000
[Exposure=NE]	-0.004	-0.236	0.813
[Exposure=NW]	0.010	0.554	0.579
[Exposure=S]	-0.006	-0.461	0.645
[Exposure=SE]	0.014	0.848	0.397
[Exposure=SW]	0.032	2.003	0.045
[Exposure=W]	0^a		
[Parking Type=None]	-0.068	-5.930	0.000
[Parking Type=Underground]	0^{a}		
[Locker=None]	-0.078	-9.393	0.000
[Locker=Owned]	0^{a}		
[Balcony=Enclosed]	-0.037	-1.574	0.116
[Balcony=None]	-0.051	-2.365	0.018
[Balcony=Open]	-0.049	-2.544	0.011
[Balcony=Terrace]	0^{a}		
[Pets Allowed=No]	0.064	2.520	0.012
[Pets Allowed=Yes]	0^{a}		
Speed	-0.002	-5.545	0.000
Distance	-0.151	-7.092	0.000
Population Density	1.204E-05	10.380	0.000
After Tax Income	3.460E-06	11.355	0.000
Immigrants	-0.001	-1.111	0.267
Green View Index	0.004	5.008	0.000
Observations	2733		
R-Squared	0.670		

^a. This parameter is set to zero because it is redundant.

Model-12 (Full dataset with log transformed Sold Price with variable of interest "Maximum Pets Allowed")

The empirical results obtained after running the twelfth model with full dataset of 2733 observations with log transformed sold price are presented in Table 25. This model has a R-squared value of 0.673 which explains 67.3 percent of the variance of condominium prices and offers a good fit for the analysis. The t-value for the variable of interest "Maximum Pets Allowed" suggests that the relationship is statistically significant. The coefficient for "Maximum Pets Allowed" is negative for condominiums that allow only 1 pet. This means that condominiums that allow only 1 pet sell for 5.1 percent less price than those allow 2 or more pets. Hence from this model, we can conclude that the variable "Maximum Pets Allowed" has a significant impact on condominium prices, while controlling for other determinants of price.

Table 25: Regression results for Model 12

Variables	Coefficient β	T-statistic	Sig.
Intercept	14.064	245.578	0.000
[Bedrooms=0]	-0.547	-22.206	0.000
[Bedrooms=1]	-0.200	-15.456	0.000
[Bedrooms=2]	0^{a}		
[Washrooms=1]	-0.946	-33.287	0.000
[Washrooms=2]	-0.769	-29.341	0.000
[Washrooms=3]	0^{a}		
[Exposure=E]	-0.036	-2.640	0.008
[Exposure=N]	-0.066	-4.673	0.000
[Exposure=NE]	-0.003	-0.190	0.849
[Exposure=NW]	0.012	0.627	0.531
[Exposure=S]	-0.006	-0.447	0.655
[Exposure=SE]	0.014	0.873	0.383
[Exposure=SW]	0.035	2.152	0.031
[Exposure=W]	0^{a}		
[Parking Type=None]	-0.070	-6.146	0.000
[Parking Type=Underground]	0^{a}		
[Locker=None]	-0.077	-9.339	0.000

Table 25 continued

Variables	Coefficient β	T-statistic	Sig.
[Locker=Owned]	0^{a}		
[Balcony=Enclosed]	-0.031	-1.308	0.191
[Balcony=None]	-0.042	-1.979	0.048
[Balcony=Open]	-0.047	-2.450	0.014
[Balcony=Terrace]	0^{a}		
[Maximum Pets Allowed =0]	0.050	1.951	0.051
[Maximum Pets Allowed =1]	-0.051	-4.319	0.000
[Maximum Pets Allowed =2+]	0^{a}		
Speed	-0.002	-5.036	0.000
Distance	-0.152	-7.150	0.000
Population Density	1.207E-05	10.440	0.000
After Tax Income	3.326E-06	10.893	0.000
Immigrants	-0.001	-0.830	0.406
Green View Index	0.004	4.833	0.000
Observations	2733		
R-Squared	0.673		

^a. This parameter is set to zero because it is redundant.

Model-13 (Full dataset with log transformed Sold Price with variable of interest "Maximum Dogs Allowed")

The empirical results obtained after running the thirteenth model with full dataset of 2733 observations with log transformed sold price are presented in Table 26. The goodness-of-fit of the model is 0.676 which indicates that the model explains 67.6 percent of the variance of condominium prices and offers a good fit for the analysis. The t-value for the variable of interest "Maximum Dogs Allowed" is 7.05 for condominiums that allow 1 dog which suggests that the relationship is statistically significant. The coefficient for "Maximum Dogs Allowed" where only 1 dog is allowed is negative which means that the price for condominiums that allow only one dog suffers a discount of 6.4 percent in price compared to the condominiums that allow 2 or more dogs. Hence from this model, we can conclude that all else being equal, the variable

"Maximum Dogs Allowed" has a significant impact on condominium prices, while controlling for other determinants of price.

Table 26: Regression results for Model 13

Variables	Coefficient \beta	T-statistic	Sig.
Intercept	14.107	246.669	0.000
[Bedrooms=0]	-0.552	-22.506	0.000
[Bedrooms=1]	-0.203	-15.802	0.000
[Bedrooms=2]	0^{a}		
[Washrooms=1]	-0.941	-33.277	0.000
[Washrooms=2]	-0.766	-29.409	0.000
[Washrooms=3]	0^{a}		
[Exposure=E]	-0.037	-2.747	0.006
[Exposure=N]	-0.061	-4.300	0.000
[Exposure=NE]	0.001	0.078	0.938
[Exposure=NW]	0.013	0.708	0.479
[Exposure=S]	0.001	0.107	0.915
[Exposure=SE]	0.023	1.436	0.151
[Exposure=SW]	0.036	2.284	0.022
[Exposure=W]	0^{a}		
[Parking Type=None]	-0.072	-6.386	0.000
[Parking Type=Underground]	0^{a}		
[Locker=None]	-0.071	-8.556	0.000
[Locker=Owned]	0^{a}		
[Balcony=Enclosed]	-0.027	-1.164	0.244
[Balcony=None]	-0.043	-2.045	0.041
[Balcony=Open]	-0.042	-2.201	0.028
[Balcony=Terrace]	0^{a}		
[Maximum Dogs Allowed=0]	0.046	1.795	0.073
[Maximum Dogs Allowed=1]	-0.064	-7.052	0.000
[Maximum Dogs Allowed=2+]	0^{a}		
Speed	-0.003	-5.917	0.000
Distance	-0.153	-7.252	0.000
Population Density	1.246E-05	10.823	0.000
After Tax Income	3.168E-06	10.392	0.000
Immigrants	-0.001	-1.448	0.148
Green View Index	0.004	4.352	0.000
Observations	2733		
R-Squared		0.676	

^a. This parameter is set to zero because it is redundant.

Model-14 (Full dataset with log transformed Sold Price with variable of interest "Small Caged Pets Allowed")

The empirical results obtained after running the fourteenth model with full dataset of 2733 observations with log transformed sold price are presented in Table 27. The model obtained a R-squared value of 0.67 which explains 67 percent of the variance of condominium prices. The t-value for the variable of interest "Small Caged Pets Allowed" in this model is 2.13 and therefore the relationship is statistically significant at 5 percent level. The coefficient for the same variable of interest is negative with a value of -0.021 for condominiums that do not allow small or caged pets. This suggests that the condominiums that allow small or caged pets sell for higher price than those that do not allow them. In other words, the condominiums that do not allow small or caged pets sell for a discount of 2.1 percent compared to the ones that allow them. Therefore, we can conclude that all else being equal, the variable "Small Caged Pets Allowed" has an impact on condominium prices, while controlling for other determinants of price.

Table 27: Regression results for Model 14

Variables	Coefficient $oldsymbol{eta}$	T-statistic	Sig.
Intercept	14.054	245.860	0.000
[Bedrooms=0]	-0.547	-22.159	0.000
[Bedrooms=1]	-0.196	-15.071	0.000
[Bedrooms=2]	O ^a		
[Washrooms=1]	-0.945	-33.138	0.000
[Washrooms=2]	-0.763	-29.026	0.000
[Washrooms=3]	O ^a		
[Exposure=E]	-0.035	-2.547	0.011
[Exposure=N]	-0.063	-4.399	0.000
[Exposure=NE]	-0.002	-0.134	0.894
[Exposure=NW]	0.015	0.835	0.404
[Exposure=S]	-0.004	-0.318	0.751
[Exposure=SE]	0.017	1.065	0.287

Table 27 continued

Variables	Coefficient β	T-statistic	Sig.
[Exposure=SW]	0.036	2.250	0.025
[Exposure=W]	0^{a}		
[Parking Type=None]	-0.070	-6.115	0.000
[Parking Type=Underground]	0^{a}		
[Locker=None]	-0.075	-9.063	0.000
[Locker=Owned]	0^{a}		
[Balcony=Enclosed]	-0.035	-1.487	0.137
[Balcony=None]	-0.044	-2.061	0.039
[Balcony=Open]	-0.050	-2.567	0.010
[Balcony=Terrace]	0^{a}		
[Small Caged Pets Allowed=No]	-0.021	-2.126	0.034
[Small Caged Pets Allowed=Yes]	0^{a}		
Speed	-0.002	-4.784	0.000
Distance	-0.162	-7.457	0.000
Population Density	1.136E-05	9.853	0.000
After Tax Income	3.290E-06	10.612	0.000
Immigrants	0.000	-0.246	0.806
Green View Index	0.004	5.308	0.000
Observations	2733		
R-Squared	0.670		

^a. This parameter is set to zero because it is redundant.

Model-15 (Full dataset with log transformed Sold Price with variable of interest "Weight Size Restriction")

The empirical results obtained after running the fifteenth model with full dataset of 2733 observations with log transformed sold price are presented in Table 28. In this model, the goodness-of-fit is 0.672 which explains 67.2 percent of the variance of condominium prices. The t-value for the variable of interest in this model is 1.194 which implies that the relationship is statistically insignificant. This leads us to conclude that the variable "Weight Size Restriction" may not have an impact on condominium prices.

Table 28: Regression results for Model 15

Variables	Coefficient \beta	T-statistic	Sig.
Intercept	14.082	242.290	0.000
[Bedrooms=0]	-0.541	-21.666	0.000
[Bedrooms=1]	-0.195	-14.550	0.000
[Bedrooms=2]	0^{a}		
[Washrooms=1]	-0.967	-32.938	0.000
[Washrooms=2]	-0.786	-28.805	0.000
[Washrooms=3]	0^{a}		
[Exposure=E]	-0.040	-2.855	0.004
[Exposure=N]	-0.066	-4.522	0.000
[Exposure=NE]	0.001	0.053	0.958
[Exposure=NW]	0.017	0.903	0.367
[Exposure=S]	-0.008	-0.566	0.571
[Exposure=SE]	0.014	0.851	0.395
[Exposure=SW]	0.033	2.021	0.043
[Exposure=W]	0^{a}		
[Parking Type=None]	-0.065	-5.674	0.000
[Parking Type=Underground]	0^{a}		
[Locker=None]	-0.079	-9.359	0.000
[Locker=Owned]	0^{a}		
[Balcony=Enclosed]	-0.031	-1.302	0.193
[Balcony=None]	-0.049	-2.259	0.024
[Balcony=Open]	-0.048	-2.437	0.015
[Balcony=Terrace]	0^{a}		
[Weight Size Restriction=No]	0.011	1.194	0.232
[Weight Size Restriction=Yes]	0^{a}		
Speed	-0.002	-5.252	0.000
Distance	-0.159	-7.064	0.000
Population Density	1.208E-05	10.192	0.000
After Tax Income	3.559E-06	11.109	0.000
Immigrants	-0.001	-1.451	0.147
Green View Index	0.004	4.730	0.000
Observations	2733		
R-Squared	0.672		

^a. This parameter is set to zero because it is redundant.

Model-16 (500m Buffer data subset with log transformed Sold Price and variable of interest "Pets Allowed")

The empirical results obtained after running the sixteenth model with 500m Buffer data subset with log transformed Sold Price of 1408 observations are presented in Table 29. The R-squared value obtained for this model explains 71.6 percent of the variance of condominium prices and offers a decent fit for the analysis. The coefficient for "Pets Allowed" in the model is positive at 1.8 percent. However, the t-value for the variable of interest "Pets-Allowed" is 0.66 and therefore it is statistically insignificant. This suggests us to conclude that all else being equal, this variable may not have an impact on the sale price of condominiums.

Table 29: Regression results for Model 16

Variables	Coefficient \beta	T-statistic	Sig.
Intercept	14.313	161.691	0.000
[Bedrooms=0]	-0.524	-15.827	0.000
[Bedrooms=1]	-0.188	-9.528	0.000
[Bedrooms=2]	0^{a}		
[Washrooms=1]	-0.969	-25.868	0.000
[Washrooms=2]	-0.818	-25.579	0.000
[Washrooms=3]	0^{a}		
[Exposure=E]	-0.057	-2.790	0.005
[Exposure=N]	-0.074	-3.593	0.000
[Exposure=NE]	0.002	0.070	0.945
[Exposure=NW]	0.014	0.571	0.568
[Exposure=S]	-0.026	-1.285	0.199
[Exposure=SE]	0.013	0.610	0.542
[Exposure=SW]	0.031	1.410	0.159
[Exposure=W]	0^{a}		
[Parking Type=None]	-0.061	-3.720	0.000
[Parking Type=Underground]	0^{a}		
[Locker=None]	-0.067	-5.944	0.000
[Locker=Owned]	0^{a}		
[Balcony=Enclosed]	-0.010	-0.261	0.794
[Balcony=None]	-0.001	-0.030	0.976
[Balcony=Open]	-0.080	-2.554	0.011

Table 29 continued

Variables	Coefficient β	T-statistic	Sig.
[Balcony=Terrace]	0^{a}		
[Pets Allowed=No]	0.018	0.666	0.506
[Pets Allowed=Yes]	0^{a}		
Speed	-0.002	-2.451	0.014
Distance	0.008	0.117	0.907
Population Density	3.722E-06	1.692	0.091
After Tax Income	2.427E-06	4.438	0.000
Immigrants	-0.003	-3.012	0.003
Green View Index	0.005	3.320	0.001
Observations		1408	
R-Squared		0.716	

^a. This parameter is set to zero because it is redundant.

Model-17 (500m Buffer data subset with log transformed Sold Price and variable of interest "Maximum Pets Allowed")

The empirical results obtained after running the seventeenth model with 500m Buffer data subset with log transformed Sold Price of 1408 observations are presented in Table 30. The R-squared value obtained for this model is 0.719 which suggests that the model explains 72 percent of the variance of condominium prices and offers a decent fit for the analysis. The coefficient for the variable of interest "Maximum Pets Allowed" in this model is negative with a percentage of 5.8 for condominiums that allow only 1 pet. The t-value for the same at 3.85 implies that the relationship is statistically significant. Therefore, we can say that condominiums that allow 2 or more pets has a premium price compared to those that allow only one pet. In other words, condominiums that allow only 1 pet sell at a 5.8 percent discount than those that allow 2 or more pets. This leads us to conclude that all else being equal, the variable "Maximum Pets Allowed" has an impact on condominium prices, while controlling for other determinants of price.

Table 30: Regression results for Model 17

Variables	Coefficient β	T-statistic	Sig.
Intercept	14.356	161.691	0.000
[Bedrooms=0]	-0.519	-15.757	0.000
[Bedrooms=1]	-0.180	-9.113	0.000
[Bedrooms=2]	0^a		
[Washrooms=1]	-0.982	-26.233	0.000
[Washrooms=2]	-0.825	-25.893	0.000
[Washrooms=3]	0^{a}		
[Exposure=E]	-0.058	-2.817	0.005
[Exposure=N]	-0.080	-3.875	0.000
[Exposure=NE]	-0.002	-0.077	0.938
[Exposure=NW]	0.013	0.531	0.596
[Exposure=S]	-0.032	-1.605	0.109
[Exposure=SE]	0.013	0.585	0.559
[Exposure=SW]	0.032	1.430	0.153
[Exposure=W]	0^a		
[Parking Type=None]	-0.063	-3.884	0.000
[Parking Type=Underground]	0^{a}		
[Locker=None]	-0.067	-5.963	0.000
[Locker=Owned]	0^{a}		
[Balcony=Enclosed]	-0.001	-0.038	0.969
[Balcony=None]	0.004	0.105	0.917
[Balcony=Open]	-0.079	-2.526	0.012
[Balcony=Terrace]	0^{a}		
[Maximum Pets Allowed =0]	0.008	0.303	0.762
[Maximum Pets Allowed =1]	-0.058	-3.849	0.000
[Maximum Pets Allowed =2+]	0^{a}		
Speed	-0.001	-1.623	0.105
Distance	0.064	0.965	0.335
Population Density	2.597E-06	1.176	0.240
After Tax Income	1.903E-06	3.393	0.001
Immigrants	-0.004	-3.605	0.000
Green View Index	0.006	3.758	0.000
Observations	1408		
R-Squared		0.719	

^a. This parameter is set to zero because it is redundant.

Model-18 (500m Buffer data subset with log transformed Sold Price and variable of interest "Maximum Dogs Allowed")

The empirical results obtained after running the eighteenth model with 500m Buffer data subset with log transformed Sold Price of 1408 observations are presented in Table 31. The R-squared value for this model explains 72.3 percent of the variance of condominium prices and offers a decent fit for the analysis. The coefficient for "Maximum Dogs Allowed" in the model is negative with a percentage value of 7.8 percent. The t-value at 5.63 suggests that the relationship is statistically significant. Hence, we can say that the condominiums that allow 2 or more dogs sell at a higher price than the ones that allow only one dog. In other words, the condominiums that allow only one dog sell for 7.8 percent less than the ones that allow 2 or more dogs. This implies that all else being equal, the variable "Maximum Dogs Allowed" has a significant impact on condominium prices, while controlling for other determinants of price.

Table 31: Regression results for Model 18

Variables	Coefficient \beta	T-statistic	Sig.
Intercept	14.380	162.748	0.000
[Bedrooms=0]	-0.519	-15.851	0.000
[Bedrooms=1]	-0.179	-9.183	0.000
[Bedrooms=2]	0^a		
[Washrooms=1]	-0.970	-26.165	0.000
[Washrooms=2]	-0.813	-25.681	0.000
[Washrooms=3]	0^a		
[Exposure=E]	-0.057	-2.824	0.005
[Exposure=N]	-0.072	-3.510	0.000
[Exposure=NE]	0.003	0.128	0.898
[Exposure=NW]	0.011	0.461	0.645
[Exposure=S]	-0.023	-1.177	0.239
[Exposure=SE]	0.025	1.159	0.247
[Exposure=SW]	0.033	1.497	0.135
[Exposure=W]	0^a		
[Parking Type=None]	-0.067	-4.129	0.000
[Parking Type=Underground]	0^a		

Table 31 continued

Variables	Coefficient β	T-statistic	Sig.
[Locker=None]	-0.058	-5.188	0.000
[Locker=Owned]	0^{a}		
[Balcony=Enclosed]	-0.002	-0.043	0.966
[Balcony=None]	0.006	0.182	0.856
[Balcony=Open]	-0.076	-2.436	0.015
[Balcony=Terrace]	0^{a}		
[Maximum Dogs Allowed=0]	0.021	0.749	0.454
[Maximum Dogs Allowed=1]	-0.078	-5.627	0.000
[Maximum Dogs Allowed=2+]	0^{a}		
Speed	-0.003	-3.588	0.000
Distance	0.107	1.595	0.111
Population Density	6.594E-06	2.951	0.003
After Tax Income	2.666E-06	4.915	0.000
Immigrants	-0.006	-4.866	0.000
Green View Index	0.004	2.685	0.007
Observations	1408		
R-Squared	0.723		

^a. This parameter is set to zero because it is redundant.

Model-19 (500m Buffer data subset with log transformed Sold Price and variable of interest "Small Caged Pets Allowed")

The empirical results obtained after running the nineteenth model with 500m Buffer data subset with log transformed Sold Price of 1408 observations are presented in Table 32. The goodness-of-fit of the model is 0.717 which indicates that the model explains 72 percent of the variance of condominium prices and offers a good fit for the analysis. The coefficient for "Small Caged Pets Allowed" is negative with a percentage value of 2.4 percent. The t-value at 1.82 suggests that the relationship is statistically insignificant at 5 percent level. However, it is significant at 10 percent level.

Table 32: Regression results for Model 19

Variables	Coefficient \beta	T-statistic	Sig.
Intercept	14.288	162.783	0.000
[Bedrooms=0]	-0.525	-15.896	0.000
[Bedrooms=1]	-0.184	-9.308	0.000
[Bedrooms=2]	0^{a}		
[Washrooms=1]	-0.970	-25.927	0.000
[Washrooms=2]	-0.814	-25.567	0.000
[Washrooms=3]	0^{a}		
[Exposure=E]	-0.056	-2.717	0.007
[Exposure=N]	-0.073	-3.537	0.000
[Exposure=NE]	0.001	0.032	0.975
[Exposure=NW]	0.019	0.744	0.457
[Exposure=S]	-0.027	-1.332	0.183
[Exposure=SE]	0.016	0.717	0.474
[Exposure=SW]	0.035	1.585	0.113
[Exposure=W]	0^{a}		
[Parking Type=None]	-0.062	-3.826	0.000
[Parking Type=Underground]	0^{a}		
[Locker=None]	-0.064	-5.690	0.000
[Locker=Owned]	0^{a}		
[Balcony=Enclosed]	-0.008	-0.221	0.825
[Balcony=None]	0.006	0.185	0.853
[Balcony=Open]	-0.081	-2.595	0.010
[Balcony=Terrace]	0^{a}		
[Small Caged Pets Allowed=No]	-0.024	-1.822	0.069
[Small Caged Pets Allowed=Yes]	0^{a}		
Speed	-0.002	-2.524	0.012
Distance	-0.028	-0.419	0.675
Population Density	4.833E-06	2.109	0.035
After Tax Income	2.488E-06	4.547	0.000
Immigrants	-0.003	-2.815	0.005
Green View Index	0.006	3.714	0.000
Observations	1408		
R-Squared		0.717	

^a. This parameter is set to zero because it is redundant.

Model-20 (500m Buffer data subset with log transformed Sold Price and variable of interest "Weight Size Restriction")

The empirical results obtained after running the final model with 500m Buffer data subset with log transformed Sold Price of 1408 observations are presented in Table 33. The R-squared value obtained for this model is 0.728 which suggests that the model explains 73 percent of the variance of condominium prices. The coefficient for the variable of interest "Weight Size Restriction" in the model is negative at a percentage value of 5.7 percent. The t-value for the variable is at 4.06 which suggests that the relationship is statistically significant. Hence from this model, we can say that the price of a condominium decreases by 5.7 percent if the condominium does not have any weight, size or breed restrictions or in other words, the condominiums with weight, size or breed restrictions sell for higher prices. Therefore, this model suggests us to conclude that all else being equal the variable "Weight Size Restriction" has an impact on condominium prices, while controlling for other determinants of price. A summarized regression results for all the variables of interest used in the analysis are presented in Table 34.

Table 33: Regression results for Model 20

Variables	Coefficient β	T-statistic	Sig.
Intercept	14.292	160.282	0.000
[Bedrooms=0]	-0.487	-14.265	0.000
[Bedrooms=1]	-0.156	-7.296	0.000
[Bedrooms=2]	0^{a}		
[Washrooms=1]	-0.984	-25.198	0.000
[Washrooms=2]	-0.802	-23.520	0.000
[Washrooms=3]	O ^a		
[Exposure=E]	-0.066	-3.156	0.002
[Exposure=N]	-0.085	-4.037	0.000
[Exposure=NE]	-0.001	-0.047	0.963
[Exposure=NW]	0.023	0.866	0.387
[Exposure=S]	-0.030	-1.502	0.133
[Exposure=SE]	0.007	0.306	0.760

Table 33 continued

Variables	Coefficient β	T-statistic	Sig.		
[Exposure=SW]	0.024	1.069	0.285		
[Exposure=W]	0^a				
[Parking Type=None]	-0.057	-3.477	0.001		
[Parking Type=Underground]	0^a				
[Locker=None]	-0.070	-6.063	0.000		
[Locker=Owned]	0^a				
[Balcony=Enclosed]	-0.034	-0.857	0.391		
[Balcony=None]	-0.019	-0.537	0.591		
[Balcony=Open]	-0.091	-2.888	0.004		
[Balcony=Terrace]	0^a				
[Weight Size Restriction=No]	-0.057	-4.068	0.000		
[Weight Size Restriction=Yes]	0^a				
Speed	-0.002	-2.536	0.011		
Distance	0.060	0.868	0.385		
Population Density	2.199E-06	0.971	0.332		
After Tax Income	2.561E-06	4.508	0.000		
Immigrants	-0.002	-1.887	0.059		
Green View Index	0.007	3.965	0.000		
Observations	1408				
R-Squared	0.728				

^a. This parameter is set to zero because it is redundant.

Table 34: Regression Results summary for variables of interest

	Pets Allowed (No)	Max. Pets Allowed (1)	Max. Dogs Allowed (1)	Small Caged Pets Allowed (No)	Weight Size Restriction (No)
	Coefficient	Coefficient	Coefficient	Coefficient	Coefficient
Full data	4564	-36082***	-47014***	-14300*	5818
500m Buffer	-20289	-38346***	-66430***	-32603***	-30069**
Full data LogN	0.064**	-0.051***	-0.064***	-0.021**	0.011
500m Buffer					
LogN	0.018	-0.058***	-0.078***	-0.024*	-0.057***

^{***} p<0.01, ** p<0.05, * p<0.1

7. Conclusion and Discussion

This research suggests that there is a statistically significant impact of pet policies of a condominium building on property values. I found that condominiums that allow two or more pets sell for higher prices than those that allow less than two pets. Furthermore, condominiums that allow two or more dogs sell for a higher price. The analysis was conducted using two levels of data: one with complete sample and the other with narrowing down the comparable buildings within 500m buffer. The dependent variable was then log transformed to get the percent change in sold price. The impact of variables "Maximum Pets Allowed" and "Maximum Dogs Allowed" was statistically significant in the four samples analyzed as we can see in Table 34.

Focusing on the sample within 500m buffer, "Weight Size Restriction" variable also shows a significant impact suggesting that condominiums that have weight, size or breed restrictions cost 5.7 percent more than the rest. This research also supports the previous studies in concluding that there is a premium to be paid for condominiums that have pet policy restrictions in place. I observed that the price differences were not significant when the dependent variable was a Yes/No dichotomy. The price differences were observable when the pet policy restrictions were more graduated or nuanced. My assumption is that allowing pets with some restrictions could suggest that the building is of good quality and the restrictions are supposed to maintain the quality and the value of the building and such restrictions may capitalize positively in property values. These findings are useful for developers of new condominium projects as wells as condominium corporations in their decision-making efforts to establish rules and regulations regarding pet restrictions on condominiums.

The main limitation in this analysis is the challenge in data collection from the condominium corporations. The quality of the detailed pet policy information gathered through this survey

method largely depend on the knowledge of the people who participated in the survey. If they are not knowledgeable enough to answer the pet policy related questions in the survey, the quality of the analysis may be affected. Also, some condominium corporations do not share their pet-policy related data with outsiders. Therefore, rather than conducting the telephonic survey, if the pet policy related data can be gathered through reliable sources such as condominium policy document itself, the quality of these data as well as the results can be improved. The pet amenities inside the condominium buildings, for example, pet spas, roof-top dog park, pet day-care facilities etc., were not available in the dataset. Including these details in the analysis could improve the quality of the findings.

Appendix

Pet Restriction in Condominiums Questionnaire

Response Code:
Q1. Is seeing eye dog or guide dog allowed?
\square Yes
\square No
□ Other:
Q2. Are pets allowed in the condo?
□ Yes
□ Other:
Q3. If answer to Q2 is No, are small pet fishes allowed in the condo?
\square Yes
□ No
Q4. If answer to Q2 is Yes, what types of pets are allowed?
□ Cats
□ Dogs
□ Fish
□ Birds
☐ Small caged pets like mice, guinea pigs, and hamsters
8 1 78 187
Q5. How many pets are allowed per unit?
Q6. Are there weight or size restrictions?
□ Yes
□ No
Other:

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