

Ethical Dilemmas Facing Today's Real Estate Professional

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Abstract

This paper examines the multitude of ethical dilemmas faced by real estate professionals on a daily basis. In particular, this research examines the listing, showing and negotiation phases of the home purchasing process. Empirical results suggest that there are some incidences that might suggest that some brokers may be “pushing the envelope” in terms of ethical behavior.

I. Introduction

Individuals that chose real estate as a profession have done so for myriad of reasons. It is a dynamic and fast paced industry that allows agents to largely control their own schedules as well as earning potential. It is also a career that serves an important role in society by providing the expertise to guide home buyers through the potentially largest purchase of their lifetime. However, in any position of power there is opportunity for abuse. Real estate professionals are constantly faced with ethical dilemmas which place these professionals between the proverbial rock and a hard place. That is, being forced to choose between what is best for their clients or customers and themselves.

As with most careers involving sales, real estate professionals encounter ethically compromising situations so frequently that they may be unaware of the situation or the implications of their actions. Many offer advice to their clients trying to be helpful, but are unaware of the problems they may create. These forms of ethical quandaries or ethical dilemmas with unintended consequences may be the most dangerous. Even though there may be no malice present on the part of the professional, the practices can still be harmful to the participants and reflect badly on the real estate industry. It is only through acknowledgement that these ethically compromising situations can be openly discussed and prevented.

There are numerous events during a real estate transaction where the lines between right and wrong may get blurred. This paper will cover just a few of these potentially disastrous situations.

Some of the situations where it may be a matter of interpretation as to whether an ethical dilemma exists are outline in the exhibit below.

Potential Ethical Dilemma	Explanation
Accepting overpriced listing contract (DOP)	Accepting a contract listing that is suspected to be overpriced may be misleading to the seller projecting false hope.
Suggesting a low reservation price (NOMKT)	Advising to set a reservation price that is below market “norms”.
Demanding a longer listing contract (LOC)	Asking for a longer contract length than what is the marketing “norms” for the area.
Accepting additional listing contracts (LAONMKT)	Agent accepting a listing contract when they already have a full portfolio of property listings.
Showing listed properties (DUALA)	Showing agent listed properties first, agency listed properties next.
Showing listed properties/Ration Procrastination (TTEEND)	Aggressively showing and marketing those listed properties that listing contracts are expiring soon. Focusing on properties with nearing contract expirations rather than newly listed properties. Recommend seller accept a lower reservation price due to approaching contract expiration

Many brokers are members of the National Association of Realtors, or NAR, voluntarily which has a code of ethics which follows that of the medical, engineering and law professions and is shown in exhibit 1.

<INSERT EXHIBIT 1 ABOUT HERE>

This voluntary code of ethics illustrate that real estate professionals are aware and concerned with many of these potential ethical dilemmas.

II. Data

The data for this study consists of residential properties obtained from an MLS in southeastern Virginia. The initial data included 21,452 properties that were marketed and sold, withdrawn or expired for the timeframe April 1999 through June 2009. After removing incomplete, missing, or illogical data as well as properties that did not sell, the final data set used in this analysis consists of 21,026 properties that were sold, withdrawn or expired. Of these 21,026 observations, 12,892 properties sold with the remaining 8,134 properties either expiring or being withdrawn. Data collected from the MLS include the typical variables used in real estate hedonic pricing and duration models. These variables include selling price, time on market, square footage, number of bedrooms, bathrooms, among others. The average property in the sample listed for \$190,623 and sold for \$167,540 with 1,980 square feet, 27.5 years in age, with 3 bedrooms and 2 bathrooms. The average listing contract was 190 days spending 127 days on the market before expiring, being withdrawn or selling. The average listing agent had almost 7 listings. A complete variable legend along with summary and definitions are provided in exhibit 2.

III. Potential ethical dilemmas with listing contract

a. Advising on reservation/listing price

There are numerous situations surrounding the listing contract and/or listing contract terms. One of the many tasks that a broker is likely to be expected to perform when being recruited to assist in selling a seller's property is to provide advice in the setting of the list price. The price at which a seller lists their property may be a signal to potential buyers as to their willingness or motivation to sell. A list price too high is likely to deter potential buyers and increase the marketing time of the property whereas a low list price is likely to bring about suboptimal offer

and a lower selling price. While a veteran broker will likely seek out comparable properties and use these as a basis for suggesting a listing price, a great deal of subjectivity is involved in the selection of comparable properties. Anglin, Rutherford and Springer (2003) find that overpriced properties take longer to sell. Yavas and Yang (1995) examine the optimal listing price for residential properties and find that increased listing prices increases the expected marketing duration and lowers the probability of sale.

Given this empirical and somewhat tautological information, why would a listing broker accept a contract where the homeowner feels their property is worth more than the current market might dictate? This positions the broker in a situation of either accepting the overpriced listing or declining the listing all together. **Is it ethical for a broker to accept a listing believed to be significantly overpriced?** That is, should a broker accept a contract listing where the listing price of the property is significantly inflated based on current market conditions and comparable properties knowing that it is not likely to sell at this inflated price? The broker will not likely earn a commission and simultaneously will likely lose goodwill and reputational capital as the seller will be unsatisfied that the property is not selling.

It is likely that more experienced brokers would not likely accept such listings because an overpriced property is unlikely to sell in the same or similar time frame as other properties offering the same or similar utility to buyers. Experience brokers however may agree to accept an extended listing contract expecting that the market will dictate that the seller adjust the property value before contract expiration (more on this below).

However, a young inexperienced broker will be likely in a situation where they are desperately trying to establish a business and will accept any and all listings.

While a lower list price is likely to increase the probability of a more expedited transaction, it is likely to generate suboptimal offers and result in reduced proceeds to the seller. While a reduced list price of significantly impacts the seller's proceeds, the impact to the broker is only fractional. Therefore, it is easy to understand how a broker may be tempted to choose lower priced comparables in recommending a list price to the seller. **Is it ethical for a broker to recommend a listing price below market as determined by quality and other amenities and characteristics?**

Furthermore, it is obvious that each homeowner will have a different utility functions with different holding costs. Some sellers will choose a pricing strategy which is to price their property at or below market while others may choose an exposure strategy of pricing above the market and waiting for a buyer to be matched (Benjamin and Chinloy, 2000)

Benjamin and Chinloy (2000) find that brokers concentrate more on those seller's following a pricing strategy.

b. Listing contract duration

It is understandable that a listing broker acquiring a listing contract will prefer a longer listing contract holding all else constant, to help ensure that a commission is earned before the expiration of the contract. Ideally an infinite duration listing contract would be preferred by most listing agents however are generally not legal. As aforementioned, a listing broker may be tempted to accept a listing contract in which they believe to priced above what the current market

will endure given that the listing contract is sufficiently long enough so that the broker has ample time to search out a qualified buyer and/or the market conditions dictate that the seller lower the reservation price. So this begs the question, holding all else constant, **Should brokers request listing contracts longer than what is considered normal for the market and economic conditions?**

Geltner, Kluger and Miller (1991) using a dynamic optimization technique find that brokers tend to place less effort on newly listed contracts with this level of effort increasing over time as the contract approaches expiration. The authors refer to this as rational procrastination (more on this later).

Asabere, Huffman and Johnson (1996) find that selling prices do increase with listing contract duration but declines as the listing contract nears expiration. The authors find this to be a result of sellers lowering their reservation price as a result of increased search costs.

Clauretje and Daneshvary (2008) model principal-agent issues surrounding the listing contract expiration and find that prices decrease as the listing contract nears expiration and posit this to be a result of brokers encouraging sellers to lower their reservation price providing support for their price-reduction effect hypothesis.

Listing brokers have no assurance that if a listing contract expires they will be rehired by the seller. As such, Miceli (1989) develops a search model that illustrates how a finite duration listing contract can be used by sellers as motivation for the broker to sell the property within the timeframe of the listing contract. Following the theoretical work of Miceli (1989), Waller, Brastow and Johnson (2010) empirically find that longer listing contracts lead to extended marketing durations.

While it may sound reasonable, that a broker should accept a listing contract with an inflated list price if the client is willing give the broker ample opportunity to find a buyer, there are costs and consequences associated with such actions. For example, the broker has no guarantee that the seller will lower her reservation price, the property will sell or the seller will rehire the broker if the listing contract expires. If the contract expires without success, there is a probability that the seller will be disappointed and as such will not rehire the broker for future transactions and may also make disparaging comments to other potential clients or customers (damaged reputational capital). Furthermore all costs associated with the marketing of the said property are lost.

c. How many is too many?

Just as many believe there is no such thing as too much money, most brokers would likely say there is no such thing as too many listings. **Should an agent take on additional contract listings if they already have a full portfolio of listings?** Obviously as the number of listings increase, the proportion of effort that the agent dedicates to a given property will likely decrease. Turnbull and Dombrow (2007) find that as the scale of listing or selling activities at the firm level increase, selling price decreases while the marketing duration of the property is increased. The authors also find that agent listings that are more geographically dispersed will produce lower selling prices and unaffected or increased marketing durations.

Brastow, Springer and Waller (2010) examine this situation from the agent's perspective and find that listing agent inventory negatively impacts both selling price and marketing duration.

Furthermore the authors find that the probability of a successful transaction is significantly reduced as the agent continues to acquire additional listings.

d. Do brokers rationally procrastinate?

Once a broker has acquired a listing contract, they have a finite amount of time in which to produce a ready, willing and able buyer in order to earn a commission. Therefore, the average seller might be under the illusion that the broker will immediately start to market, promote and otherwise seek out a buyer. However, as aforementioned, the typical broker is representing more than one seller at any given time, therefore impacting the amount of time that may be allocated to a given property.

IV. The Model

Previous authors have established a connection between the selling price and the TOM of residential real estate (see Sirmans et al., 2005, for a recent review). Theoretical models and empirical results have come to different conclusions about the price/TOM relationship. Models that focus on agency effects or seller reservation prices predict a negative relationship. As properties stay on the market longer selling prices will be lower. However, search theory implies that longer time on market will be associated with a greater probability of attracting higher offers and, therefore, a higher selling price. For this study, we estimate the selling price and the TOM effects. The TOM and pricing model is estimated as an OLS hedonic regression. The independent variables include measures of agent incentives as well as the usual property

descriptors, a quadratic time vector, geographic area fixed effects and measures of market activity (interest rate levels).

The models for the i^{th} property are characterized as:

$$\ln SP_i = f(X_i, \text{Market Measures}_i, \text{Broker}_i), \quad (1)$$

and

$$\ln TOM_i = f(X_i, \text{Market Measures}_i, \text{Broker}_i) \quad (2)$$

where

SP_i = selling price of property i

TOM_i = the number of days property i is on the market,

X_i = a vector of property and location variables,

Market Measures_i = a vector of variables describing market conditions and broker characteristics, and

Broker_i = a vector of variables describing broker incentives.

The **Broker** variables are of particular interest and include *Length of Contract*, *Compensation*, *Degree of Overpricing*, and *Listing Agent Listings*. *Degree of Overpricing* uses the residual from a hedonic list price equation. The others are specified in quadratic form to model possible nonlinearity in their impacts on dependent variables.¹

V. Results

The base pricing and duration models (models 1 & 2) on which all other models are based are shown in exhibit 3 and typical of hedonic pricing and duration models with the traditional housing characteristic along with geographical, seasonal, and economic variables. These two base models are the basis for the remaining analyses.

The results of overpricing (DOP) on marketing duration are given in exhibit 3 (Model 3). The DOP variable is positive and significant indicating that overpricing extends marketing duration. For every 1 percent that a property is overpriced, the time on market increases by approximately xx days. A Given the typical objective of a seller to sell her property for the highest price and as quickly as possible, these results at a minimum at least partially beg the question of why a broker would accept an overpriced listing knowing that there is a likely chance earning no commission and/or the loss of reputational capital.

The results in exhibit 3 (model 4) examine the pricing impact of properties that sell within 30 days of listings and indicate that these properties sell for a significantly reduced price possibly indicating that the reservation price was lower than the market would have allowed. While it is the responsibility of the seller to determine the list price, one of the duties of the broker is to advise the homeowner.

The result of listing contract duration is given in exhibit 5 (models 5 and 6), indicated that a increase in contract length will positively impact price but has a negative impact on marketing duration. While the impact of contract length on price is very marginal, the impact on marketing duration is significant. In fact, the impact is almost one-to-one. That is for every additional day in contract length will increase time on market an additional day.

To examine if the amount of agent inventory has an impact on pricing and/or marketing duration, the inventory variable is included in the models 7 and 8 (exhibit 6). There is a significant and negative impact of listing agent inventory on pricing indicating that as listing agents take on additional inventory, the selling price for a given property will decrease. Although the

coefficient in the duration model is positive indicating additional listings will increase a given property's marketing duration, it is not significant at conventional levels.

Exhibit 7 (model 9) examines the impact of price as a listing contract nears expiration. The END coefficient is negative and significant indicating that properties that sell within the last 30 days of the listing contract will transact at a reduced selling price.

VI. Conclusions

There are numerous issues involving ethical questions such as dual agency, broker owned properties, recommendation for ancillary services and the list goes on. This paper has explored only a fraction of the potential ethical dilemmas faced by real estate brokers and agents.

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Exhibit 1: NAR Code of Ethics

Article 1	REALTORS® protect and promote their clients' interests while treating all parties honestly.
Article 2	REALTORS® refrain from exaggeration, misrepresentation, or concealment of pertinent facts related to property or transactions.
Article 3	REALTORS® cooperate with other real estate professionals to advance their clients' best interests
Article 4	When buying or selling on their own account or for their families or firms, REALTORS® make their true position or interest known.
Article 5	REALTORS® do not provide professional services where they have any present or contemplated interest in property without disclosing that interest to all affected parties.
Article 6	REALTORS® disclose any fee or financial benefit they may receive from recommending related real estate products or services.
Article 7	REALTORS® receive compensation from only one party, except where they make full disclosure and receive informed consent from their client.
Article 8:	REALTORS® keep entrusted funds of clients and customers in a separate escrow account.
Article 9:	REALTORS® make sure that contract details are spelled out in writing and that parties receive copies.
Article 10:	REALTORS® give equal professional service to all clients and customers irrespective of race, color, religion, sex, handicap, familial status, or national origin.
Article 11:	REALTORS® are knowledgeable and competent in the fields of practice in which they engage or they get assistance from a knowledgeable professional, or disclose any lack of expertise to their client.
Article 12:	REALTORS® paint a true picture in their advertising and in other public representations.
Article 13:	REALTORS® do not engage in the unauthorized practice of law.
Article 14:	REALTORS® willingly participate in ethics investigations and enforcement actions.
Article 15:	REALTORS® make only truthful, objective comments about other real estate professionals.
Article 16:	Respect the exclusive representation or exclusive brokerage relationship agreements that other REALTORS® have with their clients.
Article 17:	REALTORS® arbitrate financial disagreements with other REALTORS® and with their clients.

Exhibit 2: Variable legend and summary/descriptive statistics

Variable	Description	Mean	Std. Dev.
Sprice	Selling price	167540	103842
Tom	Number of days on market	127	101
Sqft	Square footage	1980	870
Age	Age of property	27.51	31.40
Acreage	Acreage of property	3.14	16.13
Bedrooms	Number of bedrooms	3.23	0.81
Fullbath	Number of full bathrooms	2.03	0.72
Halfbath	Number of half bathrooms	0.42	0.54
Fire	Dummy variable, 1 if property has fireplace, 0 otherwise	0.66	0.47
Garage	Dummy variable, 1 if property has garage, 0 otherwise	0.39	0.49
Brick	Dummy variable, 1 if property has brick exterior, 0 otherwise	0.51	0.50
Vinylsiding	Dummy variable, 1 if property has vinyl siding, 0 otherwise	0.51	0.50
Alumsiding	Dummy variable, 1 if property has aluminum siding, 0 otherwise	0.04	0.19
Hardwood	Dummy variable, 1 if property has hardwood flooring, 0 otherwise	0.54	0.50
Ceramictile	Dummy variable, 1 if property has ceramic tile, 0 otherwise	0.25	0.43
Carpet	Dummy variable, 1 if property has carpet, 0 otherwise	0.82	0.39
Finbase	Dummy variable, 1 if property has finished basement, 0 otherwise	0.26	0.44
Pool	Dummy variable, 1 if property has pool, 0 otherwise	0.16	0.37
Paveddrive	Dummy variable, 1 if property has paved driveway, 0 otherwise	0.49	0.51
Securitysys	Dummy variable, 1 if property has security system, 0 otherwise	0.10	0.30
Condo	Dummy variable, 1 if property is condominium, 0 otherwise	0.02	0.15
Townhouse	Dummy variable, 1 if property is townhouse, 0 otherwise	0.09	0.29
Mobile	Dummy variable, 1 if property is mobile home, 0 otherwise	0.01	0.09
Dwide	Dummy variable, 1 if property is doublewide, 0 otherwise	0.04	0.21
Listtime	Chronological time variable	25.75	8.70
Winter	Dummy variable, 1 if listed in winter, 0 otherwise	0.26	0.44
Summer	Dummy variable, 1 if listed in summer, 0 otherwise	0.26	0.44

Fall	Dummy variable, 1 if listed in fall, 0 otherwise	0.19	0.40
FRMLD	30 year fixed mortgage rate at listing date	6.18	0.46
DOP	Degree of overpricing	0.001	0.277
LOC	Length of listing contract	190	109
Nomkt	Dummy variable for properties that sold within 30 days of listing	0.06	0.23
Laonmkt	Number of houses listed with broker	6.76	8.96

Exhibit 3: BASE PRICING and DURATION MODEL

Model 1: Base Pricing Model			Model 2: Base Duration Model		
LnSP	Coef.	P>t	LnTOM	Coef.	P>t
Lnsqft	.5278145	0.000	lnsqft	.2598014	0.000
Lnage	-.1029618	0.000	lnage	-.0723011	0.000
lnacreage	.1928006	0.000	lnacreage	.0227045	0.014
bedrooms	-.0103182	0.003	bedrooms	.0114271	0.266
fullbath	.0774622	0.000	fullbath	-.0254842	0.043
halfbath	.0424614	0.000	halfbath	-.0259255	0.040
fire1	.07278	0.000	fire1	-.0412878	0.004
garage1	.0820254	0.000	garage1	.0018202	0.894
Brick	.0286887	0.000	brick	-.0278596	0.034
vinylsiding	-.0312958	0.000	vinylsiding	-.0029023	0.831
alumsiding	-.0602239	0.000	alumsiding	-.0108642	0.723
hardwood	.0490551	0.000	hardwood	.0186816	0.163
ceramictile	.0515411	0.000	ceramictile	.0089304	0.549
Carpet	-.0156245	0.004	carpet	-.00401	0.805
finbase	-.0684056	0.000	finbase	-.134329	0.000
Pool	.0432312	0.000	pool	-.0062424	0.705
paveddrive	.0506311	0.000	paveddrive	-.0249023	0.057
securitysys	.0422907	0.000	securitysys	.1630092	0.000
Condo	-.0121848	0.396	condo	.2608999	0.000
townhouse	-.0829729	0.000	townhouse	.1934783	0.000
mobile	-.5454049	0.000	mobile	.167193	0.008
Dwide	-.4295723	0.000	dwide	.0492756	0.099
listtime	.0350439	0.000	listtime	-.0220479	0.000
listtimesq	-.0004257	0.000	listtimesq	.0003637	0.000
winter	.0045469	0.359	winter	.0815715	0.000
summer	-.0138633	0.006	summer	-.0075877	0.617
Fall	-.0114607	0.035	fall	.1298949	0.000
Frmlld	.0679155	0.000	frmlld	.1628308	0.000
N=12892			N=21026		
R- Sq=.8231			R- Sq=.0880		
F=709.37			F=24.05		

Exhibit 4: Degree of overpricing and quick sell properties.

Model 3: Degree of Overpricing in Duration Model			Model 4: Pricing model to measure pricing effect of properties that sell within 30 days.		
Intom	Coef.	P>t	Insp	Coef.	P>t
dop	.2742116	0.000	Nomkt2	-.0343025	0.000
lnsqft	.2797541	0.000	lnsqft	.5266846	0.000
lnage	-.0717642	0.000	lnage	-.1027033	0.000
lnacreage	.0060019	0.520	lnacreage	.1927698	0.000
bedrooms	.0091819	0.370	bedrooms	-.0102924	0.003
fullbath	-.0270927	0.031	fullbath	.0776362	0.000
halfbath	-.0274215	0.029	halfbath	.0424393	0.000
fire1	-.0346199	0.016	fire1	.0729622	0.000
garage1	.0104971	0.441	garage1	.0819742	0.000
brick	-.0226975	0.083	brick	.0287441	0.000
vinylsiding	.0103217	0.449	vinylsiding	-.0313115	0.000
alumsiding	.0152517	0.618	alumsiding	-.0604457	0.000
hardwood	.0285643	0.033	hardwood	.0492002	0.000
ceramictile	.0170212	0.252	ceramictile	.0517391	0.000
carpet	.0034289	0.832	carpet	-.0159312	0.004
finbase	-.1106571	0.000	finbase	-.068213	0.000
pool	-.0053363	0.746	pool	.0434453	0.000
paveddrive	-.0366152	0.005	paveddrive	.0510192	0.000
securitysys	.1513341	0.000	securitysys	.0418364	0.000
condo	.2522063	0.000	condo	-.0121942	0.395
townhouse	.2233597	0.000	townhouse	-.0830718	0.000
mobile	.2539293	0.000	mobile	-.5429677	0.000
dwide	.1544593	0.000	dwide	-.4291603	0.000
listtime	-.0257485	0.000	listtime	.0351742	0.000
listtimesq	.0004359	0.000	listtimesq	-.0004279	0.000
winter	.0810163	0.000	winter	.0043136	0.384
summer	-.0074218	0.624	summer	-.0133189	0.008
fall	.1293783	0.000	fall	-.0113295	0.037
frmlld	.1598203	0.000	frmlld	.0678484	0.000
N = 21026			N = 12,892		
R-Sq=.0942			R-Sq=.8233		
F = 25.62			F = 701.91		

Exhibit 5: Impact of listing contract length

Model 5: Impact of listing contract length on pricing			Model 6: Impact of listing contract length on marketing duration		
LNSP	Coef.	P>t	LNTOM	Coef.	P>t
Inloc	.0087808	0.010	Inloc	.9565092	0.000
Insqft	.5269583	0.000	Insqft	.1522509	0.000
Inage	-.1023347	0.000	Inage	-.0173746	0.000
Inacreage	.1926621	0.000	Inacreage	.003365	0.637
bedrooms	-.0101453	0.004	bedrooms	.0116717	0.140
fullbath	.0776603	0.000	fullbath	-.0036747	0.705
halfbath	.0428585	0.000	halfbath	.0065858	0.498
fire1	.0728858	0.000	fire1	-.0210749	0.058
garage1	.0821212	0.000	garage1	.0103946	0.323
brick	.0288011	0.000	brick	-.0131991	0.192
vinylsiding	-.0311047	0.000	vinylsiding	.0094474	0.369
alumsiding	-.0601374	0.000	alumsiding	.0006454	0.978
hardwood	.0490955	0.000	hardwood	.0138885	0.179
ceramictile	.0514771	0.000	ceramictile	.0193504	0.092
carpet	-.0152639	0.005	carpet	.0125751	0.315
finbase	-.0677848	0.000	finbase	-.050857	0.000
pool	.0430059	0.000	pool	.0025426	0.842
paveddrive	.0506116	0.000	paveddrive	-.0417606	0.000
securitysys	.041168	0.000	securitysys	.0380681	0.021
condo	-.013099	0.361	condo	.1005116	0.002
townhouse	-.0839865	0.000	townhouse	.0526527	0.006
mobile	-.545882	0.000	mobile	.1125865	0.021
dwide	-.4296443	0.000	dwide	.0717934	0.002
listtime	.0350969	0.000	listtime	-.0168761	0.000
listtimesq	-.0004262	0.000	listtimesq	.0003088	0.000
winter	.0044402	0.370	winter	.0519763	0.000
summer	-.0136309	0.006	summer	.0158824	0.175
fall	-.0117216	0.031	fall	.0843384	0.000
frmlld	.0677839	0.000	frmlld	.1247834	0.000
N= 12,892			N=21,026		
R-Sq =.8232			R-Sq =.4587		
F=701.40			F=208.78		

Exhibit 6: Impact of brokerage inventory on pricing and marketing duration

Model 7: Impact of Agent listing volume on pricing			Model 8: Impact of Agent listing volume on marketing duration		
Insp	Coef.	P>t	LnTOM	Coef.	P>t
laonmkt	-.0015087	0.002	laonmkt	.0009426	0.482
laonmktsq	.0000283	0.004	laonmktsq	-.0000122	0.627
lnsqft	.528044	0.000	lnsqft	.2597643	0.000
lnage	-.1034686	0.000	lnage	-.071867	0.000
lnacreage	.1928737	0.000	lnacreage	.0225956	0.015
bedrooms	-.0100813	0.004	bedrooms	.0112213	0.275
fullbath	.0777476	0.000	fullbath	-.0255637	0.043
halfbath	.0428079	0.000	halfbath	-.0261989	0.038
fire1	.072234	0.000	fire1	-.0408123	0.005
garage1	.0821287	0.000	garage1	.0018129	0.894
brick	.0294237	0.000	brick	-.0280994	0.033
vinylsiding	-.0315553	0.000	vinylsiding	-.0027776	0.839
alumsiding	-.0600934	0.000	alumsiding	-.0109782	0.720
hardwood	.0487004	0.000	hardwood	.0189709	0.157
ceramictile	.0516122	0.000	ceramictile	.0087954	0.555
carpet	-.0154079	0.005	carpet	-.0041317	0.799
finbase	-.0688014	0.000	finbase	-.1341814	0.000
pool	.0423486	0.000	pool	-.005581	0.736
paveddrive	.0504623	0.000	paveddrive	-.0252621	0.054
securitysys	.0422891	0.000	securitysys	.162898	0.000
condo	-.0110495	0.441	condo	.2588659	0.000
townhouse	-.0823905	0.000	townhouse	.192096	0.000
mobile	-.545683	0.000	mobile	.1680638	0.008
dwide	-.4299664	0.000	dwide	.0497511	0.096
listtime	.0349026	0.000	listtime	-.0219725	0.000
listtimesq	-.0004225	0.000	listtimesq	.0003619	0.000
winter	.0038675	0.435	winter	.0821228	0.000
summer	-.0138608	0.006	summer	-.0073142	0.630
fall	-.012072	0.026	fall	.1304064	0.000
frmlld	.0668435	0.000	frmlld	.1632967	0.000
N=12,892			N=	21,026	
R-Sq=.8232			R-Sq=	0880	
F=693			F=	23.50	

Exhibit 7: Impact of pricing as listing contract nears expiration

Model 9: Impact of reservation price as contract nears expiration					
Insp	Coef.	P>t			
tteend	-.0090731	0.034			
lnsqft	.4163262	0.000			
lnage	-.1040559	0.000			
lnacreage	.1353181	0.000			
bedrooms	-.0103466	0.004			
fullbath	.0726658	0.000			
halfbath	.03444	0.000			
fire1	.0864634	0.000			
garage1	.0716648	0.000			
brick	.033345	0.000			
vinylsiding	-.0173614	0.000			
alumsiding	-.0615212	0.000			
hardwood	.0539627	0.000			
ceramictile	.0451008	0.000			
carpet	-.0021474	0.688			
finbase	-.0367311	0.000			
pool	.0454467	0.000			
paveddrive	.0481126	0.000			
securitysys	.0212783	0.014			
condo	-.0597788	0.000			
townhouse	-.1157919	0.000			
mobile	-.5636624	0.000			
dwide	-.3928148	0.000			
listtime	.0303486	0.000			
listtimesq	-.0003545	0.000			
winter	.0019791	0.684			
summer	-.0164234	0.001			
fall	-.0129246	0.015			
frmlld	.0661353	0.000			
N=11,097*					
R-Sq=.7394					
F=367.61					

Includes properties less than \$250,000

ⁱ Among other explanatory variables, age and square footage of the property are specified in the logarithmic form. The quarterly time trend variable, *Listtime*, is expressed in the quadratic form to model real estate cycle effects over the sample period. Remaining variables are expressed in linear form.