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2013 Appraisal Institute Annual Meeting

"Turning Vision into Action"

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Appraisal Institute®

Professionals Providing Real Estate Solutions

Examples of Quantitative Support Methods from Real World Appraisals

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Overview of Presentation

Examples of Techniques and Methods employed by real world appraisers to solve unique appraisal challenges using quantitative methods, to support their opinions; examples chosen are all from the Sales Comparison Approach

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Review of Sales Comparison Approach

Search, Find, & Verify Recent Sales of Properties Similar enough to the Subject Property to be called and analyzed as Comparables

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Review of Sales Comparison Approach

IF COMPARABLE IS AN EXACT TWIN OF SUBJECT – STOP HERE;

IF NOT, MAKE A COMPARATIVE ANALYSIS OF EACH COMPARABLE SALE PROPERTY AND SUBJECT PROPERTY

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Review of Sales Comparison Approach

IF SUBJECT AND COMPARABLE DIFFER SIGNIFICANTLY IN A PARTICULAR FEATURE,

THEN ONE MAKES AN ADJUSTMENT TO THE SALE PRICE OF THE COMPARABLE TO REFLECT THE FEATURES DIFFERING CONTRIBUTIONS TO VALUE FOR THE COMP AND THE SUBJECT

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Review of Sales Comparison Approach

INDICATION OF SUBJECT VALUE = SALE PRICE OF COMPARABLE - CONTRIBUTING VALUE OF COMPARABLE FEATURE + CONTRIBUTING VALUE OF SUBJECT FEATURE

[AN ADDITIVE MODEL]

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Review of Sales Comparison Approach

INDICATION OF SUBJECT VALUE = ADJUSTMENT FACTOR X SALE PRICE OF COMPARABLE

[A MULTIPLICATIVE MODEL]

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Review of Sales Comparison Approach

In Multiplicative Model the Adjustment Factor is the ratio of the Value Contribution of the Subject Feature divided by the Value Contribution of the Comp's Feature; in the Additive Model, it is the Difference of the Features Value Contribution to the Subject less that of the Comparable, that Difference is Added to the Sale Price of Comparable

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Review of Sales Comparison Approach

How does one come up with these Adjustment Factors? How does one support these Adjustment Factors?

That is why we are here!

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#1: Office Finish Adjustment - Industrial

The amount of Office Finished space in an Industrial Building appraisal is a variable for which we commonly see an adjustment made.

Some industrial buildings, such as a manufacturing plant, may have a relatively small amount of office space.

Some industrial buildings, such as a flex or office/showroom building, may even have a majority of its space finished as offices.

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#1: Office Finish Adjustment - Industrial

When a new industrial building is built it generally costs more for a greater amount of Office Finished space.

This cost differential is an often used rational as the basis for the adjustment that is made and this is our first example.

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#1: Office Finish Adjustment – Cost Basis

#18R-Appraisal Problem: The subject appraisal assignment was to estimate market value for an existing industrial office/warehouse property. The appraisal was used for refinancing purposes. The property appraised consisted of a 5.34 acre site improved with a 108,000 square foot office/warehouse industrial building that was built in 1968 with an addition in 2005.

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#1: Office Finish Adjustment – Cost Basis

The comparable sales ranged from 7.5% finished office space to 40.0% finished.

This example shows how one appraiser had attempted to quantify this office finish adjustment by relating his estimated adjustment to the replacement costs of buildings with varying percentages of finish.

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#1: Office Finish Adjustment – Cost Basis

THE DATE OF VALUATION WAS MAY 23, 2011.

THE APPRAISER USED SIX SALES IN HIS SALES COMPARISON ANALYSIS THAT RANGED FROM 50,372 SQUARE FEET TO 192,924 SQUARE FEET. A SIGNIFICANT DIFFERENCE BETWEEN THESE COMPARABLE SALES AND THE SUBJECT PROPERTY WERE THEIR VARYING LEVELS OF OFFICE FINISH.

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#1: Office Finish Adjustment – Cost Basis

This adjustment category reflects the differences in the percentage of finished office area between the subject and the comparables. Adjustments were applied to the comparables based on the differential of finished area between the comparables and the subject. Typically, office space rents for nearly double the rate of warehouse space.

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#1: Office Finish Adjustment – Cost Basis

The subject property has a finished area of approximately 20% of net rentable building area. The comparables have finished area ranging from 7.5% to 40%. The table below summarizes the adjustments made to each sale based on the differences of finished area.

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DERIVATION OF OFFICE FINISH ADJUSTMENT

Base Cost of Office/Warehouse Building		$60.00
Cost of Office Finish	$44.59	
Percent of Finish - Subject	20.0%	
Incremental Cost of Finished Area	——>	$8.92
Base Cost of Subject Property for Derivation of Adjustment		$68.92

	Sale #1	Sale #2	Sale #3	Sale #4	Sale #5	Sale #6
Cost of Office Finish	$44.59	$44.59	$44.59	$44.59	$44.59	$44.59
Pct. Of Comparable Finished	7.5%	14.7%	32.4%	25.0%	40.0%	10.0%
Incremental Cost	$3.34	$6.55	$14.45	$11.15	$17.84	$4.46
Base O/W Cost	$60.00	$60.00	$60.00	$60.00	$60.00	$60.00
Base Cost of Comparable Sale	$63.34	$66.55	$74.45	$71.15	$77.84	$64.46
Base Cost of Subject	$68.92	$68.92	$68.92	$68.92	$68.92	$68.92
Adjustment	9%	4%	-7%	-3%	-11%	7%

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#1: Office Finish Adjustment – Cost Basis

THE APPRAISAL THEORY BEHIND THIS TECHNIQUE IS THAT MARKET VALUE IS RELATED TO REPLACEMENT COST. THAT IS, THE GREATER THE COST FOR BUILDINGS WITH GREATER PERCENTAGES OF OFFICE SPACE, THE GREATER THE MARKET VALUES OF THOSE BUILDINGS. IN THE ABOVE CHART THE APPRAISER FIRST ESTIMATES THE LIKELY COST PER SQUARE FOOT FOR THE SUBJECT BUILDING, GIVEN ITS 20% LEVEL OF OFFICE FINISH.

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#1: Office Finish Adjustment – Cost Basis

THE SAME REPLACEMENT COST IS ESTIMATED FOR SALE #1, FOR EXAMPLE, WHICH IS A BUILDING WITH ONLY 7.5% OFFICE FINISH.

BY DIVIDING THE ESTIMATED REPLACEMENT COST OF THE SUBJECT BY THAT FOR SALE #1, WE SEE THAT SUCH A BUILDING AS THE SUBJECT WOULD HAVE A LIKELY COST OF ABOUT +9% GREATER; THUS, AN UPWARD ADJUSTMENT OF +9% IS REASONED TO ESTIMATE MARKET VALUE.

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#1: Office Finish Adjustment – Cost Basis

THIS APPROACH IS VIEWED AS A GOOD TECHNIQUE OF ATTEMPTING TO MEASURE VALUE DIFFERENCES FOR PROPERTIES WITH VARYING DEGREES OF OFFICE FINISH. ONE SHOULD BE AWARE THAT THIS IS A LINEAR MODEL AND IT MAY NOT APPLY IF THERE IS A LARGE DEGREE OF DIFFERENCE IN THE SUBJECT AND COMPARABLE SALE BUILDINGS. THIS TECHNIQUE IS CONSIDERED TO BEST MEASURE SMALL DIFFERENCES.

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#1: Office Finish Adjustment – Cost Basis

IF, FOR EXAMPLE, A COMPARABLE SALE BUILDING HAD 80% OFFICE FINISH AND THE SUBJECT HAD 20%, ONE MIGHT WANT TO TEMPER THIS CALCULATED ADJUSTMENT FOR THE POSSIBLE FUNCTIONAL OBSOLESCENCE OF AN OVER-IMPROVEMENT OF TOO MUCH OFFICE FINISHED SPACE. FINALLY, SINCE THIS METHOD USES COST DIFFERENCES TO MEASURE MARKET VALUE DIFFERENCES, ONE MUST BE AWARE OF ANY FUNCTIONAL OR EXTERNAL OBSOLESCENCE ISSUES.

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#1: Office Finish Adjustment – Cost Basis

FUNCTIONAL OBSOLESCENCE MIGHT BE THE OVER IMPROVEMENT ISSUE OF TOO MUCH OFFICE SPACE FOR WHICH THE MARKET WILL NOT REFLECT FULLY IN VALUE, AS DISCUSSED ABOVE. THE EXTERNAL OBSOLESCENCE MIGHT BE AN ECONOMICALLY DEPRESSED OR OVER BUILT MARKET FOR WHICH COST DOES NOT EQUAL VALUE.

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#2: Office Finish Adjustment – Rent Basis

#18S APPRAISAL PROBLEM: THE SUBJECT APPRAISAL ASSIGNMENT WAS TO ESTIMATE MARKET VALUE FOR AN EXISTING INDUSTRIAL OFFICE/WAREHOUSE PROPERTY. THE APPRAISAL WAS USED FOR REFINANCING PURPOSES. THE PROPERTY APPRAISED CONSISTED OF A 2.79 ACRE SITE IMPROVED WITH A 29,000 SQUARE FOOT OFFICE WAREHOUSE INDUSTRIAL BUILDING THAT WAS BUILT IN 2005. THE DATE OF VALUATION WAS MARCH 16, 2011.

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#2: Office Finish Adjustment – Rent Basis

THE APPRAISER USED FIVE SALES IN HIS SALES COMPARISON ANALYSIS THAT RANGED FROM 24,408 SQUARE FEET TO 59,782 SQUARE FEET. A SIGNIFICANT DIFFERENCE BETWEEN THESE COMPARABLE SALES AND THE SUBJECT PROPERTY WERE THEIR VARYING LEVELS OF OFFICE FINISH. INDUSTRIAL BUILDINGS WILL GENERALLY SELL FOR GREATER PRICES, IF THEY HAVE A LARGER PERCENTAGE OF SPACE FINISHED FOR OFFICE USE.

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#2: Office Finish Adjustment – Rent Basis

THE COMPARABLE SALES RANGED FROM 7.0% FINISHED OFFICE SPACE TO 50.2% FINISHED. APPRAISERS OFTEN HAVE TO USE INDUSTRIAL SALES THAT HAVE DIFFERENT LEVELS OF OFFICE FINISH THAN THEIR SUBJECT PROPERTY AND THEN APPLY AN OFFICE FINISH ADJUSTMENT. THIS EXAMPLE SHOWS HOW ONE APPRAISER HAD ATTEMPTED TO QUANTIFY THIS OFFICE FINISH ADJUSTMENT BY RELATING HIS ESTIMATED ADJUSTMENT TO THE NET RENTAL RATES OF BUILDINGS WITH VARYING PERCENTAGES OF FINISH.

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#2: Office Finish Adjustment – Rent Basis

This adjustment category reflects the differences in the percentage of finished office area between the subject and the comparables. Adjustments are applied to the comparables based on the differential of finished area between the comparables and the subject. Typically, in this market place office space rents for nearly double the rate of warehouse space.

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#2: Office Finish Adjustment – Rent Basis

The subject property has a finished area of approximately 16% of gross building area. The comparables have finished area ranging from 7% to 50%. The theory of this adjustment is that greater rental rates imply greater market value. In the table below, first the overall rental rate factor of the subject building is calculated to be 116% of the rental rate factor of just warehouse space.

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#2: Office Finish Adjustment – Rent Basis

Then the same factor is calculated for each comparable sale property and the adjustment is calculated by dividing the subject factor by that of the comparable sale. The table below summarizes the adjustments made to each sale based on the differences of finished area.

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DERIVATION OF OFFICE FINISH ADJUSTMENT

Percent of Finish - Subject	15.7%	
Overall Rental Rate Per Square Foot Factor - Subject	——>	1.16

	Sale #1	Sale #2	Sale #3	Sale #4	Sale #5
	10290 W. 70th St., Eden Prairie, MN	875 Lund Blvd., Anoka, MN	10720 NE Mankato St., Blaine, MN	9401 73rd Av. N., Brooklyn Park, MN	6200 Lakeland Av. N., Brooklyn Park, MN
Pct. of Comparable Finished	35.0%	22.0%	7.0%	50.2%	25.0%
Overall Rental Rate/SF Factor - Comp	1.35	1.22	1.07	1.50	1.25
Overall Rental Rate/SF Factor - Subject	1.16	1.16	1.16	1.16	1.16
Ratio: Subject - to - Comparable	0.857	0.948	1.081	0.770	0.926
Adjustment	-14.3%	-5.2%	8.1%	-23.0%	-7.4%

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#2: Office Finish Adjustment – Rent Basis

THE APPRAISER DOES NOT FULLY EXPLAIN HIS METHOD SO WE WILL PRESENT OUR EXPLANATION. IN THIS PARTICULAR INDUSTRIAL MARKET IT IS COMMON FOR RENTAL RATES TO BE QUOTED ON PRICE PER SQUARE FOOT OF WAREHOUSE SPACE AND A DIFFERENT QUOTED RATE OF FINISHED OFFICE SPACE. THE RELATIONSHIP OF THESE TWO RENTAL RATES IS THAT USUALLY THE RATE FOR FINISHED OFFICE SPACE IN A BUILDING IS ABOUT DOUBLE THE WAREHOUSE RATE. THUS, THE APPRAISER REASONS THAT THE OVERALL SPACE RENTAL RATE FOR A BUILDING, LIKE THE SUBJECT, HAVING APPROXIMATELY 16% OF ITS AREA FINISHED AS OFFICE SPACE IS 1.16X

#2: Office Finish Adjustment – Rent Basis

[CALCULATED AS: 0.16(2X) + 0.84(X) = 1.16X, WHERE X REPRESENTS THE RENTAL RATE FOR WAREHOUSE SPACE].

SIMILARLY, THE OVERALL RENTAL RATE FOR A BUILDING LIKE SALE #1, WITH 35% SPACE FINISHED AS OFFICES, IS 1.35X. SO WHEN YOU CREATE AN ADJUSTMENT FACTOR BY DIVIDING THE RENTAL RATE OF THE SUBJECT (1.16X) BY THE RENTAL RATE OF SALE #1 (1.35X) YOU GET A FACTOR OF 0.857, WHICH IS RESTATED AS A DOWNWARD ADJUSTMENT OF -14.3%.

#2: Office Finish Adjustment – Rent Basis

THIS METHOD WORKS BEST IF THERE IS NOT TOO MUCH DIFFERENCE IN LEVELS OF OFFICE FINISH. IF THERE IS A SUBSTANTIAL DIFFERENCE IN LEVELS OF OFFICE FINISH THE READER IS CAUTIONED THAT THIS CALCULATED ADJUSTMENT MIGHT NOT ACCURATELY REFLECT THE DIFFERENCE IN MARKET PRICES FOR THE SAME REASONING WE SET FORTH IN EXAMPLE #18R.

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#3: Unit Mix Adjustment - Apartments

A very common real estate property type is Apartments.

Many apartment appraisals will have comparable sales that differ from the subject property in Unit Mix.

How does one adjust for these differences?

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#3: Unit Mix Adjustment - Apartments

"Unit Mix" is merely a categorical variable; not a measurement variable, neither discrete or continuous

Is a 3-Bedroom unit worth 150% of a 2-Bedroom unit?

Is it worth 300% of a 1-Bedroom unit?

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#3: Unit Mix Adjustment - Apartments

#18U - APPRAISAL PROBLEM: THE SUBJECT APPRAISAL ASSIGNMENT WAS TO ESTIMATE THE CURRENT MARKET VALUE OF A 30-UNIT MARKET RATE APARTMENT PROPERTY. THE PROPERTY APPRAISED CONSISTED OF A 1.46 ACRE SITE IMPROVED WITH A 30-UNIT APARTMENT BUILDING BUILT IN 1973. IT WAS 93% OCCUPIED AND CONSISTED OF 24 ONE-BEDROOM UNITS AND 6 TWO-BEDROOM UNITS. THE APPRAISAL WAS MADE FOR MORTGAGE FINANCING PURPOSES. THE DATE OF VALUATION WAS JUNE 23, 2011.

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#3: Unit Mix Adjustment - Apartments

The appraiser used eight sales of apartment properties in her sales comparison analysis. One difference between these comparable sales and the subject property was their unit mix. The subject property had mostly one bedroom units; 80% (24 ÷ 30 = 0.80) of its total units. The comparable sales varied in their unit mix makeups. Sale #4 consisted of an apartment where approximately 89% (40 ÷ 45 = 0.8888) of its units were one-bedroom units.

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#3: Unit Mix Adjustment - Apartments

However, Sale #7 consisted of an apartment where 100% of its units were two-bedroom units.

It is common for appraisers to have to use sales of apartment properties that vary in their unit mix from the subject apartment property being appraised. This example shows how one appraiser had attempted to quantify this adjustment for varying unit mixes in an appraisal of an apartment property.

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#3: Unit Mix Adjustment - Apartments

This adjustment category accounts for the differences in unit mix of the subject and comparable properties recognizing that the more bedrooms a multifamily property contains, the higher potential rent it can generally achieve. The expectation is that a property with a greater percentage of two- and three-bedroom units should sell for a higher per-unit price than a complex with a greater percentage of efficiencies and one-bedroom units. We find in this market that efficiency units typically rent for about 85% of the rent that otherwise similar one-bedroom units achieve.

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#3: Unit Mix Adjustment - Apartments

Two-bedroom rents are generally about +25% higher than one-bedroom units, and three-bedroom rental rates are approximately 60% higher than one-bedroom units. These observed rental differences are summarized as follows:

Efficiency Units:	85% of a one bedroom
One Bedroom Units:	100% of a one bedroom
Two Bedroom Units:	125% of a one bedroom
Three Bedroom Units:	160% of a one bedroom

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#3: Unit Mix Adjustment - Apartments

To initiate the adjustment process, the subject and comparable sales are converted to a one-bedroom-equivalency utilizing the preceding scale. To make this calculation, the total number of each unit type is multiplied by its corresponding rent percentage differential. Each of these figures is then added together and divided by the total number of dwelling units at the property. The result is a one-bedroom equivalent factor for the subject and each comparable property.

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#3: Unit Mix Adjustment - Apartments

For example, the subject property, which consists of 24 one-bedroom units and 6 two-bedroom units, can be expressed on this one-bedroom-rent-equivalent scale as being equivalent to an apartment with average units having rents of 1.05 times that of a typical one-bedroom unit {e.g. [(0 x 0.85) + (24 x 1.00) + (6 x 1.25) + (0 x 1.60)] ÷ 30 = 1.05}. Then the relationship between the subject and each comparable one-bedroom-equivalency factor, if any, is the final adjustment factor, expressed as a percentage.

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DERIVATION OF UNIT MIX ADJUSTMENT

		Sale #1	Sale #2	Sale #3	Sale #4	Sale #5	Sale #6	Sale #7	Sale #8	Subject
A	Total Dwelling Units	17	64	113	45	96	36	22	58	30
	Studios	0	1	0	0	0	8	0	0	0
	One BR	9	30	30	40	38	9	0	34	24
	Two BR	8	33	83	5	58	19	22	24	6
	Three BR	0	0	0	0	0	0	0	0	0
B	Adjusted to One BR Equivalent	19	72	134	46	111	40	28	64	32
C	Subject Units (Unadjusted)	30	30	30	30	30	30	30	30	
D	Subject Units (Adjusted)	32	32	32	32	32	32	32	32	
E	Adjustment Factor (C / A)	1.76	0.47	0.27	0.67	0.31	0.83	1.36	0.52	
F	Comparison Factor (B x E)	33.53	33.80	35.51	30.83	34.53	32.96	37.50	33.10	
	Adjustment for Unit Mix ((D - F) / F)	-6%	-7%	-11%	2%	-9%	-4%	-16%	-5%	
	Adjustment for Studios	85%								
	Adjustment for One BRs	100%								
	Adjustment for Two BRs	125%								
	Adjustment for Three BRs	160%								

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#3: Unit Mix Adjustment - Apartments

AUTHORS' REVIEW COMMENTS: IN THIS APPRAISAL THAT WAS MADE FOR MORTGAGE FINANCING PURPOSES, THE APPRAISER USED A RENT BASED METHOD TO ASSIST IN HER EVALUATION OF HOW THE DIFFERING UNIT MIXES IMPACTED THE MARKET VALUE OF THIS PROPERTY. WE FIND THAT MOST ADJUSTMENTS THAT WE SEE FOR APARTMENT UNIT MIX ARE SUPPORTED ON A DIFFERENCE IN AVERAGE UNIT SQUARE FOOTAGES. WE OBSERVE THAT THIS METHOD IS BASED ON AN ECONOMIC SCALE FOR THE ADJUSTMENT.

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#4: Time/Market Conditions Adjustment - Apartment Property

#18M - Appraisal Problem: The subject appraisal assignment was to estimate the current "as-is" market value, and the "hypothetical as-completed" and "hypothetical as-completed and stabilized" market values as of a current date (the same as the effective date for the "as-is" value) for an existing market rate apartment property located in the City of Minneapolis. The appraisal was used for refinancing purposes. The property appraised consisted of a 4.5 acre site improved with a 100-unit apartment property

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#4: Time/Market Conditions Adjustment - Apartment Property

that was built in 1950. This property was in the middle of a major remodeling project with 52 units completed and 20 more units in the process of being remodeled with the remainder of the 28 units to be completed within six months.

The date of valuation was December 1, 2010. At that point in time the local apartment market was thinly traded. There were very few arm's length sales available for appraisers to use in their sales comparison analysis.

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#4: Time/Market Conditions Adjustment - Apartment Property

APPRAISERS WERE HAVING TO USE SOME OLDER SALES AND THEN APPLY A MARKET CONDITIONS ADJUSTMENT. THIS EXAMPLE SHOWS HOW ONE APPRAISER HAD ATTEMPTED TO QUANTIFY THIS CHANGING MARKET CONDITIONS ADJUSTMENT.

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#4: Market Conditions - Apartment

There is no index for the local real estate market to show pricing movement through time for this particular multi-family property sub-market.

However, since the local real estate market has become more dependent on the national financing market and also as many investors are seeking to acquire investments in a larger geographic area, many even on a national basis, we have reviewed a national property pricing index and present information on it in this section.

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#4: Market Conditions - Apartment

The Moodys/REAL Commercial Property Index (CPPI) is a periodic same-property round-trip investment price change index of the United States commercial investment property market based on data from the Massachusetts Institute of Technology (MIT) Center for Real Estate industry partner Real Capital Analytics, Inc. (RCA).

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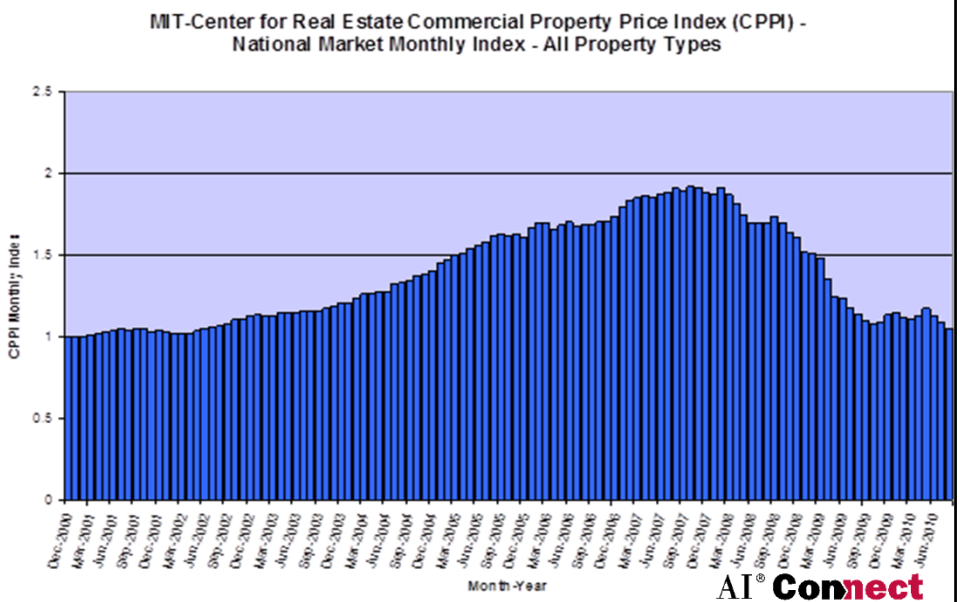
#4: Market Conditions - Apartment



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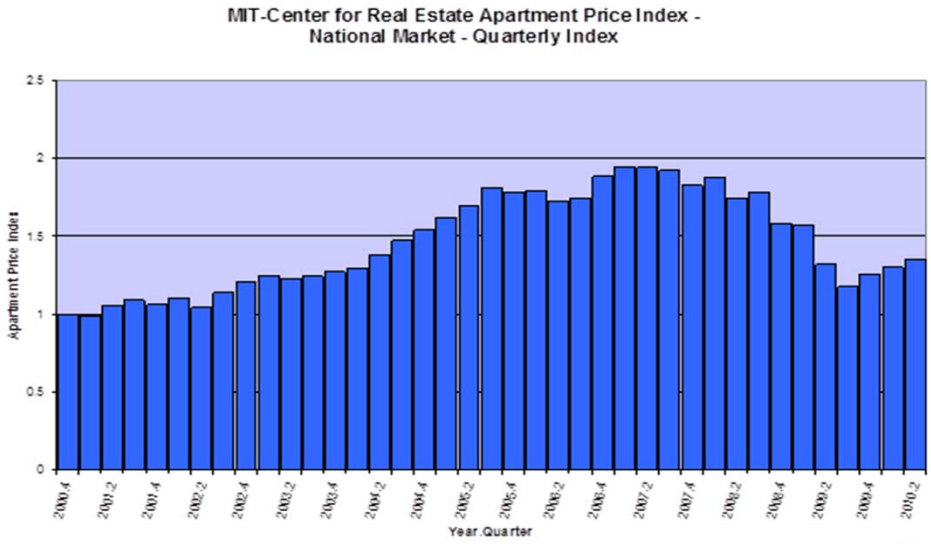
#4: Market Conditions - Apartment



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#4: Market Conditions - Apartment

An alternative way to analyze this data is to calculate the change from quarter-to-quarter.

By dividing the current quarterly index by the prior quarterly index we obtain an indication of the quarterly rate of pricing change.

Since many real estate investment market participants usually quote pricing rates of change on an annual percentage basis,

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#4: Market Conditions - Apartment

we find this quarterly rate of change analysis to be helpful and present the following graph showing the indicated quarterly rates of change through time for this national apartment market data.

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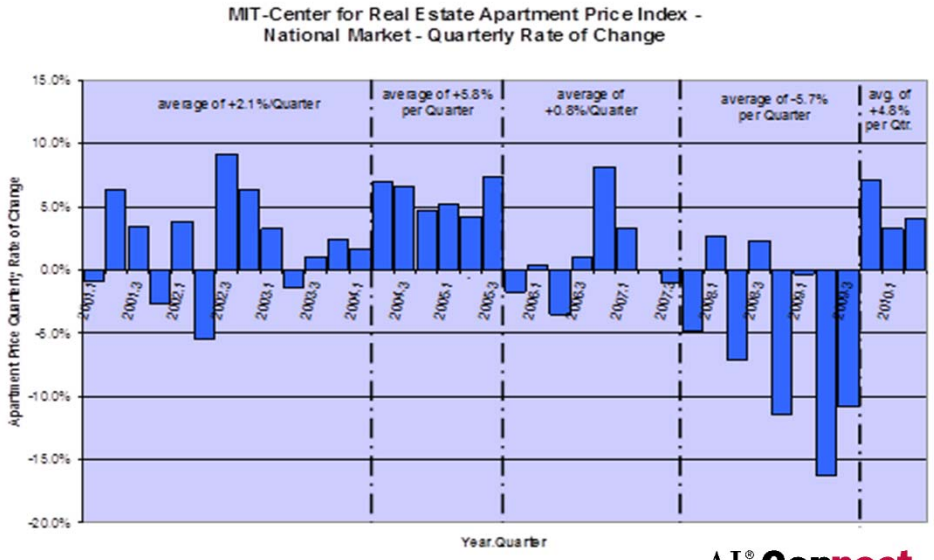
#4: Market Conditions - Apartment



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#4: Market Conditions - Apartment

To analyze our local apartment market for pricing movement we have assembled information on how average apartment rents have changed over time and also how average apartment vacancy rates have changed over time.

The value of apartment properties is a function of not only the economic performance of the properties but also the capitalization rate that buyers are using to acquire properties.

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#4: Market Conditions - Apartment

This chart also shows the average capitalization rate that is found in the Korpacz Real Estate Investor Survey, which is a quarterly publication of Price Waterhouse Coopers.

We have used this information along with our estimate of typical expenses for metro area apartments to calculate an implied value change from quarter to quarter.

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#4: Market Conditions - Apartment

Period	average apartment rent (GVA Marquette)	average vacancy (GVA)	average effective rent/unit	Change in Apartment Income	average cap rate (Korpacz Survey)	average cap rate (IRR-Mpls/St.Paul)	Implied Value Change
2004.1	$847	7.4%	$784	0.5%	7.25%	8.00%	0.5%
2004.2	$850	7.1%	$790	0.7%	7.13%	8.00%	0.7%
2004.3	$851	6.7%	$794	0.5%	7.05%	7.80%	3.1%
2004.4	$849	7.3%	$787	-0.9%	7.01%	7.60%	1.7%
2005.1	$850	6.9%	$791	0.5%	6.74%	7.40%	3.3%
2005.2	$848	6.0%	$797	0.7%	6.52%	7.20%	3.5%
2005.3	$848	5.6%	$801	0.4%	6.28%	7.00%	3.3%
2005.4	$851	6.1%	$799	-0.2%	6.13%	6.90%	1.3%
2006.1	$855	5.5%	$808	1.1%	6.07%	6.90%	1.1%
2006.2	$860	4.8%	$819	1.3%	6.01%	6.80%	2.8%
2006.3	$867	4.0%	$832	1.7%	5.98%	6.80%	1.7%
2006.4	$871	4.7%	$830	-0.3%	5.97%	6.80%	-0.3%
2007.1	$876	4.4%	$837	0.9%	5.89%	6.80%	0.9%
2007.2	$883	3.9%	$849	1.3%	5.80%	6.80%	1.3%
2007.3	$890	3.6%	$858	1.1%	5.76%	6.80%	1.1%
2007.4	$899	4.2%	$861	0.4%	5.75%	6.90%	-1.1%
2008.1	$908	3.9%	$873	1.3%	5.79%	6.90%	1.3%
2008.2	$910	3.7%	$876	0.4%	5.75%	7.00%	-1.0%
2008.3	$922	4.1%	$884	0.9%	5.86%	7.10%	-0.5%
2008.4	$906	4.9%	$862	-2.6%	6.13%	7.20%	-3.9%
2009.1	$908	4.9%	$864	0.2%	6.88%	7.30%	-1.2%
2009.2	$904	6.0%	$850	-1.6%	7.49%	7.40%	-2.9%
2009.3	$908	6.4%	$850	0.0%	7.84%	7.50%	-1.3%
2009.4	$906	7.3%	$840	-1.2%	8.03%	7.50%	-1.2%
2010.1	$901	6.1%	$846	0.7%	7.85%	7.25%	4.2%
2010.2	$902	5.0%	$857	0.8%	7.68%	7.00%	4.9%
2010.3	$905	4.2%	$867	3.2%	7.12%	6.75%	4.9%

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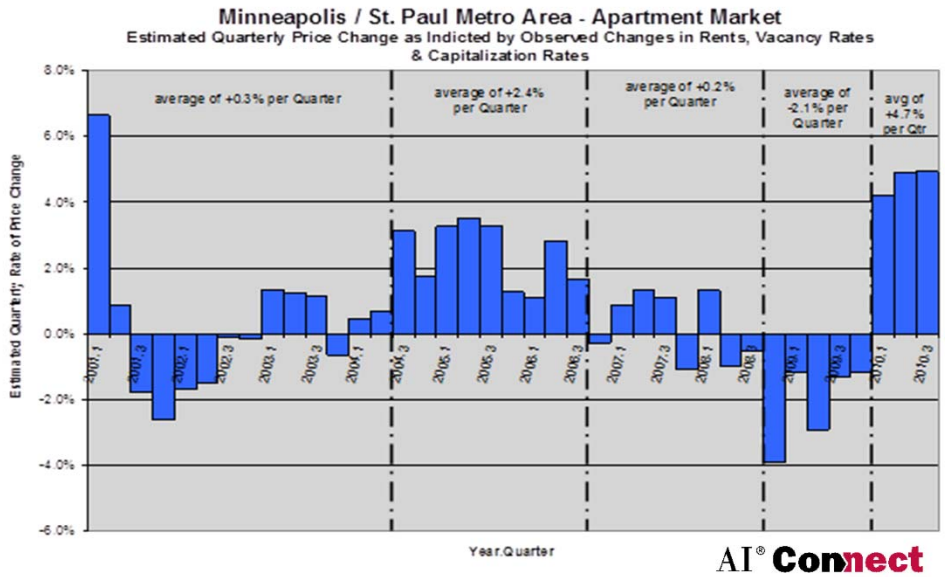
#4: Market Conditions - Apartment



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#4: Market Conditions - Apartment

Additionally, we have tested the above theoretical pricing movement method by looking to the local apartment market and analyzing relevant recent apartment sales.

To have groupings of more similar apartment properties we have looked only at sales of apartments of greater than 20 units and built after 1960 and located within the 11-county metro area.

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#4: Market Conditions - Apartment

We have taken this sales data from a professional appraiser verified database of sale transactions. We find the following statistical data to also be of help in estimating rates of pricing change through time for the changing market conditions within our local apartment market. We have used the same time intervals identified in the above theoretical method and have grouped the apartment sales from our database of professional appraiser verified sales into groups based on the timing of the date each sale was closed.

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#4: Market Conditions - Apartment

Time Intervals:	1st Qtr 2000 – 2nd Qtr '04	3rd Qtr 2004 – 3rd Qtr '06	4th Qtr 2006 – 3rd Qtr '08	4th Qtr 2008 - 4th Qtr 2009	1st Qtr 2010 - present
Number of Apartment Sales	103	56	39	21	15
Number of Sales per Month	1.9	2.1	1.6	1.4	1.4
Average Price/Unit	$53,401	$67,452	$66,600	$71,870	$65,437
Median Price/Unit	$51,471	$61,469	$58,120	$63,793	$51,389
Indicated Median Price/Unit Change	n/a	19.4%	-5.4%	3.8%	-11.6%
Average Price/SF	$53.88	$68.38	$68.05	$67.60	$59.54
Median Price/SF	$52.75	$65.95	$65.80	$60.91	$56.80
Indicated Median Price/SF Change	**n/a**	**25.0%**	**-0.2%**	**-7.6%**	**-13.7%**
Median Year Built of Sales	1969	1969	1967	1967	1967
Median Size in Units of Transaction Property	48	43	46	48	42
Median Size in SF of Transaction Property	45,750	37,136	42,650	42,732	42,938
Median Date of Sale Transaction	10/10/2001	8/18/2005	9/25/2007	3/2/2009	7/22/2010
Implied Apartment Price/SF Change per Quarter	**n/a**	**1.7%**	**0.0%**	**-0.5%**	**-1.4%**
Implied Apartment Price/Unit Change per Quarter	n/a	1.3%	-0.7%	0.2%	-1.1%

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#4: Market Conditions - Apartment

The sales analyzed in this appraisal took place from May 2008 to March 2010. Based on our research and experience we conclude that for this evaluation of the subject property and for the comparable sales selected for this comparative analysis that the local apartment market was generally strengthening with prices appreciating during the period from the third quarter of 2004 through the third quarter of 2006 at a rate of about +10% per year; we will use a rate of +2.5% per quarter for that period.

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#4: Market Conditions - Apartment

We conclude that prices were generally stable during the period from the fourth quarter of 2006 through the third quarter of 2008 and we will use a rate of +0.0% per quarter for that period. However, beginning in the fourth quarter of 2008 through the fourth quarter of 2009 we are of the opinion that prices have been depreciating and we will use a rate of decline of -8% per year, or about -2.0% per quarter.

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#4: Market Conditions - Apartment

We are of the opinion that beginning with the first quarter of 2010 through the current period that prices have stabilized and remained level at these reduced lower levels and we will use a rate of +0.0% per quarter for this most recent period. These conclusions of market condition rates of pricing changes will be applied to each of our comparable sales to express their transaction prices as of our date of evaluation.

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Presenters Concluding Remarks

- Thanks for attending
- We are collecting examples like those shown in this presentation; if you have any to share please contact us at examples@AppraisalPracticeBook.com; Jeff.Johnson@AppraisalPracticeBook.com;
- Tony.Lesicka@AppraisalPracticeBook.com
- Questions and Comments

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