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FEE SIMPLE…

It's Not So Complicated

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Why this topic is important

- Need for better understanding of how to extract fee simple cap rates and values per square foot from leased fee data:
  - comparable sales provide the key
  - leased fee methodology is the foundation

- This presentation is directed toward leased multitenanted income properties, using an office building example.

What we know

- True fee simple valuation data for leased income properties do not exist.
- Investors do not consider “fee simple/leased fee” issues
- They do not talk about fee simple vs. leased fee cap rates.

What we know

Investors focus on the basic, fundamental formula:

I/R = V

I = first year net operating income with expectation of future changes in income and value

R = risk adjusted overall capitalization rate that converts "I" assumptions into reasonable price/Value

What we need to do

- Research market behavior in more detail (comp sales)
- Find comparable transactions (leased fee) that mirror forecasts of fee simple expectations of income and resale price characteristics. They become fee simple proxies.

What we need to recognize at the outset

- First step in a fee simple valuation is to estimate market rent, property expenses and NOI for the subject.
- That is the cornerstone of a fee simple valuation. This is often forgotten.
- For valuation metrics, look to what market participants are doing to price real property deals in the real world (leased fee sale transactions).

Cost Approach

The Cost Approach usually does not require adjustment to derive a fee simple value.

Income Approach

Income approach

- Often relied upon for leased income properties
- Should not exclude (ignore) market support from comp sales
- Need to “feel the pulse” to understand “market behavior”

Where do you get fee simple cap rates

- Do comp sales reflect leased fee transactions? Yes
- Do investor surveys reflect leased fee expectations? Yes
- Does the Band of Investment usually reflect leased fee assumptions? Yes
- Do we have a problem here? No

Where do you get fee simple cap rates

- Can you adjust leased fee data and assumptions to fee simple conclusions? Yes
- Fortunately, fee simple cap rates do not depend on non-existent fee simple sales

Comparable sales – “the best source”

- AI text says it’s the “best technique”
- Reflects market behavior
- Sales can be adjusted to reach a fee simple cap rate conclusion
- But, it helps to improve the sale verification process?

Comparable verification questions

Sale verification questions that should be asked to improve your understanding of market behavior

- Contract-to-market-rent relationship?
  Impacts the expected change in NOI and value

- If rents and NOI were at market, what would cap rate and price have been?
  Provides market support for “adjusting” the comp sale cap rate to a fee simple indication

Comparable verification questions

- Can buyer update/adjust comp sale cap rate and price to your date of value?
  - does not create a new sale
  - but, helps to adjust the deal cap rate of the comp to your date of value

Fee simple proxy definition

So, what is a proxy?

In the fee simple real estate context, it may be defined as a comparable sale property whose average contact rent and net operating income (NOI) is approximately equal to market rent and NOI.

Extracting cap rates from sales

Two methods to derive fee simple proxies

- Method 1 – using the unadjusted range of sale cap rates
- Method 2 – using contract-to-market-rent ratios

Both techniques can be used for both fee simple and leased fee valuations

Office Property Example

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Subject property information

- Suburban office building
  - 4 stories, four tenants
  - 250,000 square feet of rentable area
  - average market rent: $21 per square foot

- Office market conditions are stable to slightly declining with some decrease in rental rates and increased vacancy as the local economy softens

Comparable sale transactions

COMPARABLE OFFICE BUILDING SALES

2012 - THIRD QUARTER 2013

Sale No.	Date of Sale	Land Area (Acres)	Rentable Area (Sq. Ft.)	Occupancy (%)	Total Sale Price	Sale Price/ Sq. Ft.	NOI/ Sq. Ft.	Deal Contract to Market Rent	OAR at Date of Sale	Contract to Market Rent 1/1/2014	OAR as of 1/1/2014
1	2/15/12	1.82	86,560	100.0%	$ 26,700,000	$ 308.46	$ 18.82	Equal	6.10%	Equal	7.00%
2	3/22/12	7.00	268,240	100.0%	$ 91,000,000	$ 339.25	$ 23.37	Equal	6.89%	Above	7.14%
3	5/14/12	1.92	142,833	75.0%	$ 49,000,000	$ 343.06	$ 18.53	Equal	5.40%	Equal	5.90%
4	5/23/12	6.27	126,216	88.0%	$ 23,438,000	$ 185.70	$ 13.93	Below	7.50%	Below	7.50%
5	6/18/12	0.53	19,000	100.0%	$ 4,100,000	$ 215.79	$ 17.26	Equal	8.00%	Equal	7.50%
6	6/20/12	11.02	336,721	83.0%	$ 66,500,000	$ 197.49	$ 13.82	Equal	7.00%	Equal	7.00%
7	6/25/12	1.32	142,000	82.0%	$ 52,250,000	$ 367.96	$ 21.13	Equal	5.74%	Below	6.12%
8	6/27/12	4.28	143,707	82.0%	$ 31,250,000	$ 217.46	$ 18.48	Above	8.50%	Above	8.90%

Comparable sale transactions

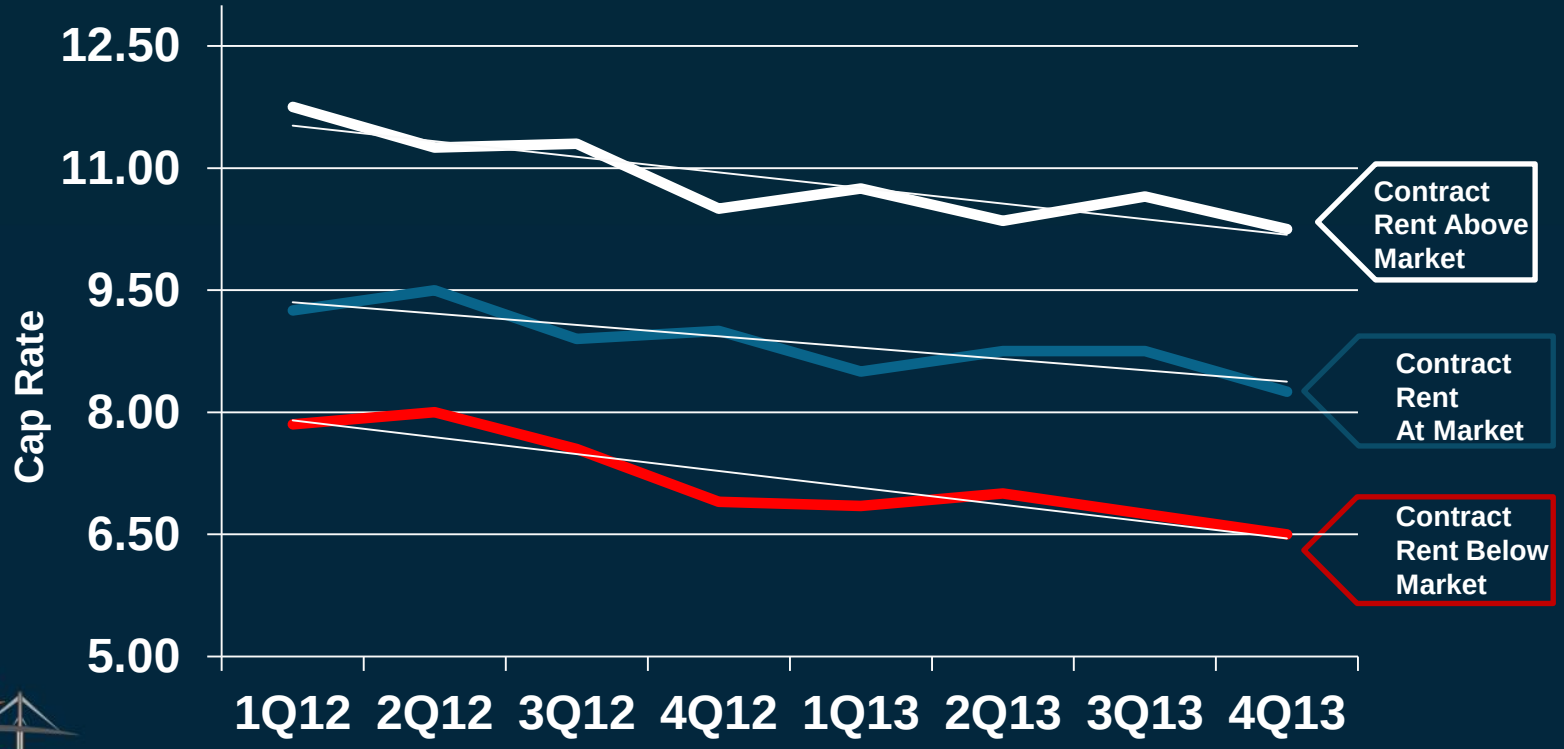
COMPARABLE OFFICE BUILDING SALES
2012 - THIRD QUARTER 2013

Sale No.	Date of Sale	Land Area (Acres)	Rentable Area (Sq. Ft.)	Occupancy (%)	Total Sale Price	Sale Price/ Sq. Ft.	NOI/ Sq. Ft.	Deal Contract to Market Rent	OAR at Date of Sale	Contract to Market Rent 1/1/2014	OAR as of 1/1/2014
9	7/24/12	12.24	202,075	99.0%	$ 49,450,000	$ 244.71	$ 18.84	Equal	7.70%	Slightly below	7.50%
10	7/24/12	3.03	368,224	97.0%	$191,000,000	$ 518.71	$ 32.16	Equal	6.20%	Equal	6.20%
11	9/13/12	2.97	38,510	100.0%	$ 5,900,000	$ 153.21	$ 11.49	Equal	7.50%	Equal	7.00%
12	10/1/12	7.81	150,872	100.0%	$ 42,000,000	$ 278.38	$ 19.49	Equal	7.00%	Equal	7.00%
13	10/5/12	1.55	100,952	99.0%	$ 31,700,000	$ 314.01	$ 19.47	Equal	6.20%	Equal	6.20%
14	11/30/12	33.66	225,038	100.0%	$ 93,500,000	$ 415.49	$ 25.34	Below	6.10%	Below	6.10%
15	12/17/12	13.99	400,000	98.0%	$119,000,000	$ 297.50	$ 23.50	Above	7.90%	Above	7.90%
16	12/18/12	3.53	163,451	95.0%	$ 37,250,000	$ 227.90	$ 17.78	Equal	7.80%	Equal	7.80%
17	12/24/12	3.70	78,250	100.0%	$ 17,250,000	$ 220.45	$ 15.43	Above	7.00%	Above	7.00%

Comparable sale transactions

COMPARABLE OFFICE BUILDING SALES 2012 - THIRD QUARTER 2013											
Sale No.	Date of Sale	Land Area (Acres)	Rentable Area (Sq. Ft.)	Occupancy (%)	Total Sale Price	Sale Price/ Sq. Ft.	NOI/ Sq. Ft.	Deal Contract to Market Rent	OAR at Date of Sale	Contract to Market Rent 1/1/2014	OAR as of 1/1/2014
18	12/26/12	10.80	239,638	89.0%	$ 52,333,333	$ 218.38	$ 13.65	Equal	6.25%	Equal	6.25%
19	12/28/12	1.95	139,467	85.0%	$ 38,000,000	$ 272.47	$ 19.62	Above	7.20%	Above	7.20%
20	2/14/13	1.30	161,684	90.0%	$ 77,250,000	$ 477.78	$ 33.44	Equal	7.00%	Equal	7.00%
21	3/4/13	0.93	333,948	99.0%	$175,600,000	$ 525.83	$ 31.02	Below	5.90%	Below	5.90%
22	3/15/13	3.19	181,542	99.0%	$ 50,900,000	$ 280.38	$ 19.64		7.00%		
23	3/20/13	15.80	360,045	100.0%	$ 99,325,000	$ 275.87	$ 20.41	Above	7.40%	Above	7.40%
24	4/26/13	2.34	32,963	100.0%	$ 5,625,000	$ 170.65	$ 13.33	Equal	7.75%	Equal	7.75%
25	7/31/13	0.38	16,900	100.0%	$ 4,850,000	$ 286.98	$ 21.52	Equal	7.50%	Equal	7.50%
26	9/16/13	1.48	22,833	100.0%	$ 5,944,076	$ 260.33	$ 19.78	Equal	7.60%	Equal	7.60%

Contract vs. market rents concept



The sales with contract rents at market become fee simple proxies.

Method 1 – range of cap rates*

- High end of range
  little or no near-term growth in NOI and value
  (above-market contract rents)

- Midpoint (average)
  typical near-term growth in NOI and value
  (contract rents at market)

- Low end of range
  above-average growth in NOI and value
  (below-market contract rents)

Which one is the fee simple proxy?

*** Where contract to market rent ratio cannot be ascertained.**

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Method 1 - comp sales average

	2012 Sales	2013 Sales	All Sales	Estimated 1/1/2014*
High end of range	8.90%	7.75%	8.50%	8.50%
Average	6.95%	7.16%	7.01%	7.05%
Median	7.00%	7.40%	7.00%	7.00%
Low end of range	5.90%	5.90%	5.40%	5.40%
Conclusion	7.00%	7.25%	7.00%	7.00%

* Date of value

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What do the sales tell us?

- Cap rates rose slightly from 2012 to 2013 as space markets post increasing vacancies and local economy struggles
- Transaction volume declined in 2013 as investors became more selective and risk adverse
- Fee simple proxies are the averages and/or medians

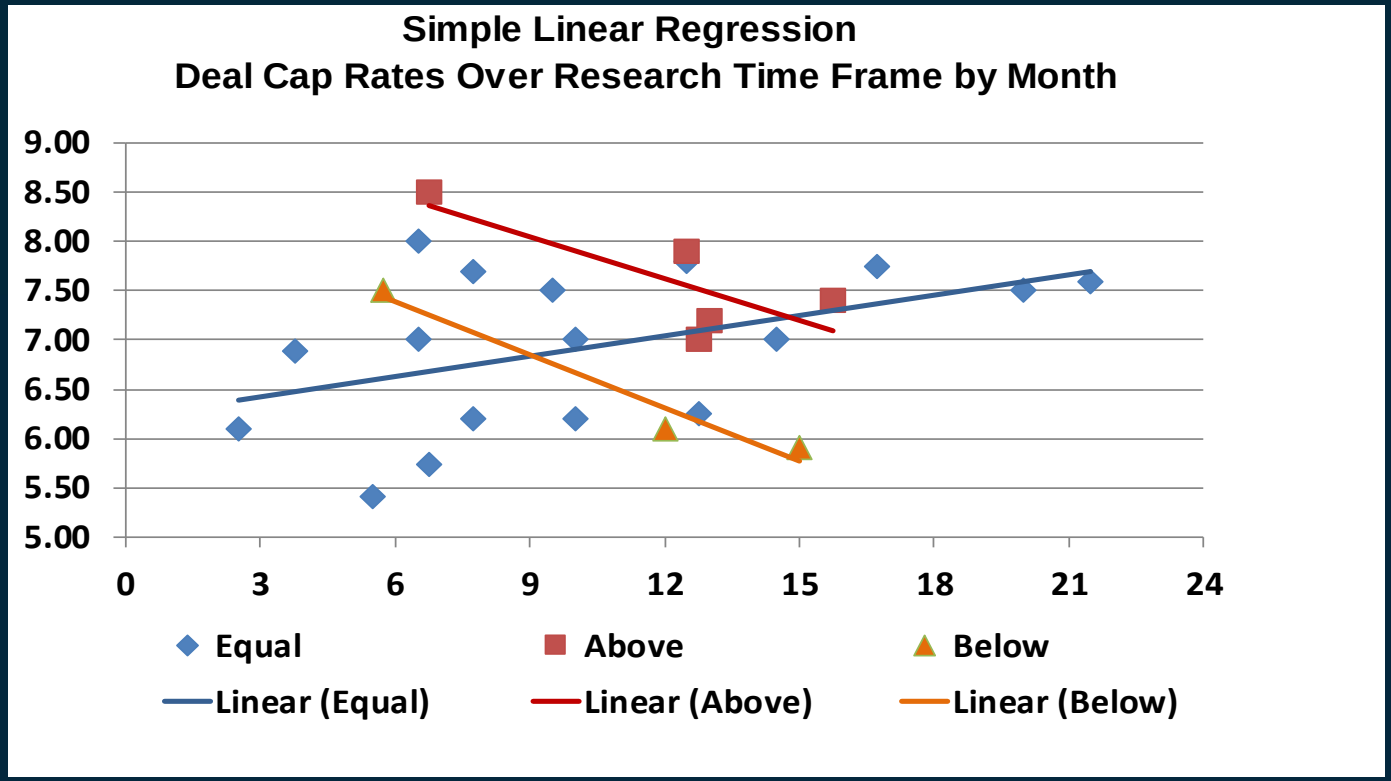
Method 2 – contract v. market rents

- Requires verification of relationship of contract to market rents on the comp sales
- Sales with contract rents above-market rent - suggest a lower fee simple cap rate
- Sales with contract rents at market rent - are the fee simple proxies
- Sales with contract rent below-market rent - suggest a higher fee simple cap rate

Understanding regression
..it doesn't have to be complicated

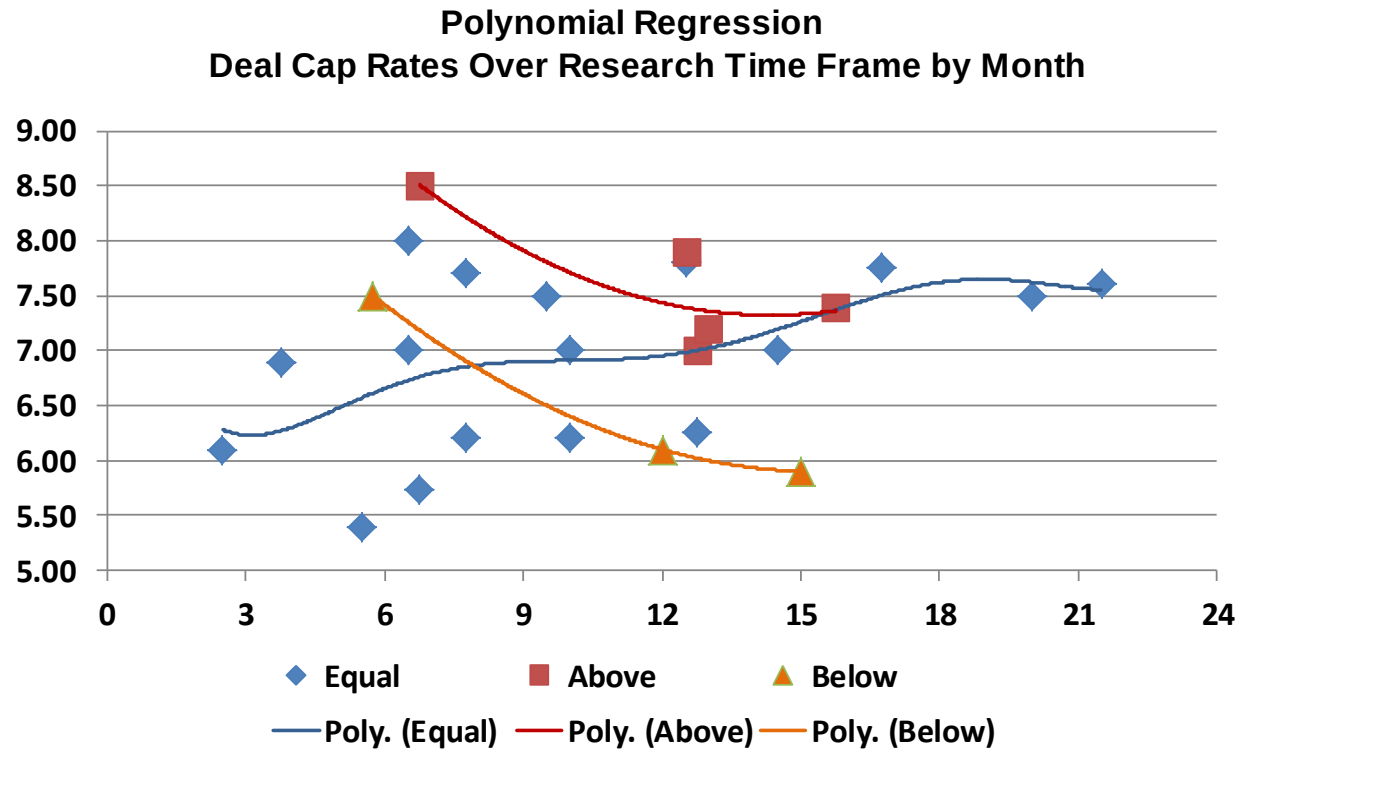
- Regression is a statistical analysis that attempts to explain the effect of one or more variables on another variable.
- Keep it simple – use linear regression wherever possible

Method 2 – simple linear regression



Simple linear regression is a type of statistical analysis used to investigate the relationship between a dependent variable (Y axis) and a single independent variable (X axis) whose data points when plotted (roughly) resemble a straight line.

Method 2 – polynomial regression



Polynomial regression is a type of statistical analysis used to investigate the relationship between a dependent variable (Y axis) and a single independent variable (X axis) whose data points fluctuate in such a way that the pattern does not resemble either a straight line or a simple curve.

Method 2 - conclusion

	2012	2013	Estimated January 1, 2014* Number	Average Cap
NOI above market	4 (7.65%)	1 (7.40%)	6	7.59%
NOI at market	13 (6.75%)	4 (7.46%)	14	6.98%
NOI below market	2 (6.80%)	1 (5.90%)	5	6.62%
Conclusion				7.25%

* Date of Value

What are the sales telling us?

- Cap rates on sales above and at market converge suggesting that investors
  - Prefer investments with contract rents below market
  - View sales with contract rents both at- and above- market rent equally risky, reflecting concerns about increasing market vacancy and struggling local economy

Summary of cap rate indications

Method 1:	7.00%
Method 2:	7.25%
Conclusion:	7.25%

May be applied in direct capitalization

Rationale for cap rate conclusion

Method 2 better captures the recent trend of increasing cap rates

Investor surveys

- Reflects contemporary investor perceptions of
  - Cap and discount rates
  - Rent and expense growth rates
  - Residual cap rates
  - Many other cash flow assumptions

- All survey data reflect leased fee perceptions and assumptions

- But, investors do not focus on fee simple/ leased fee issues. They focus on expected changes in NOI and price over time.

Investor surveys-adjusting to fee simple

- Difficult to do - contract v. market rent not surveyed or published
- Given diversity of real estate deals, average surveyed cap rates may be a reasonable fee simple proxy
- Limits sole reliance on this technique

Band of Investment technique - fee simple process

- Equity cap rate – personal investor survey (assuming fee simple characteristics)
- Equity cap rate – from comp sale proxies
- Impact of finance makes equity cap rate conclusion difficult

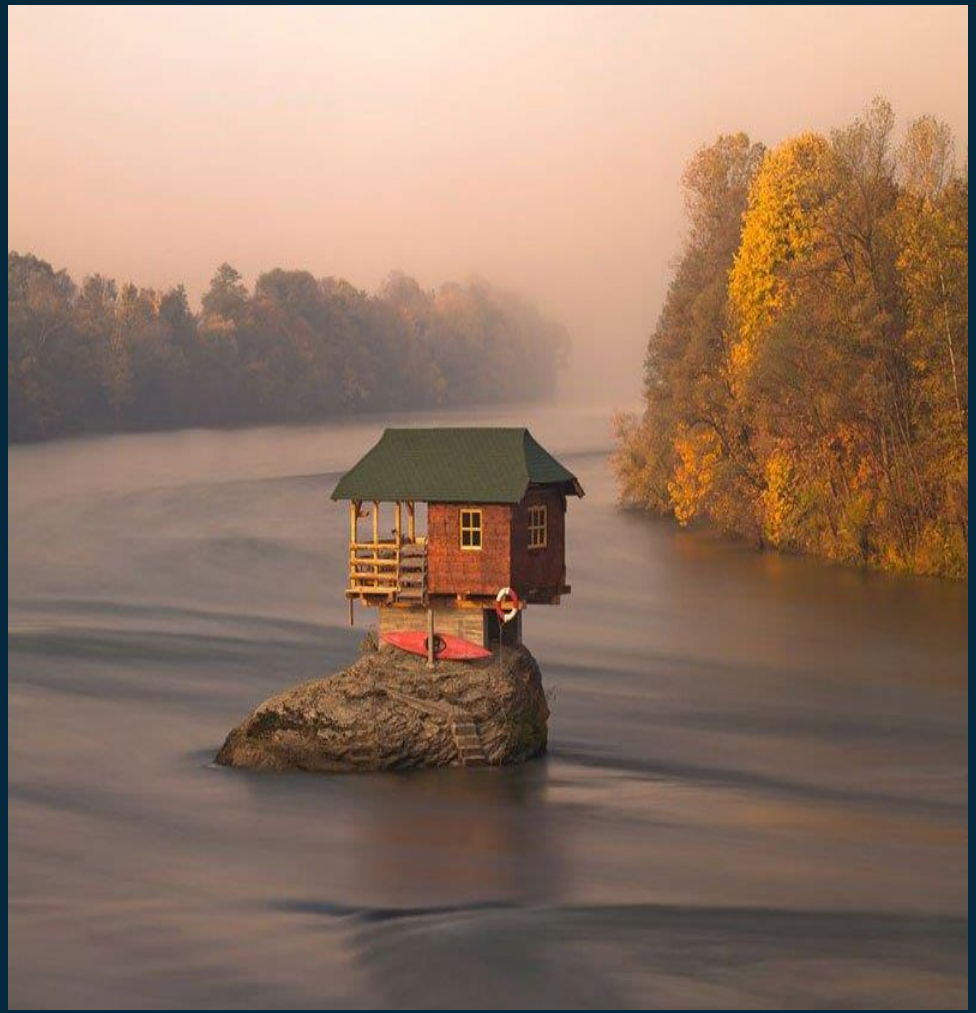
Income approach conclusion

Property Net Operating Income
250,000 sq. ft. @ $21/sq. ft. = $ 5,250,000

Overall Cap Rate 7.25%

Indicated Value Conclusion = $72,400,000
Per Sq. Ft. = $289.00 (rd)

Sales Comparison Approach



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Adjustment methodology

- Adjustment techniques for use in the Sales Comparison Approach are available
  - Qualitative - see the “big picture”
  - Quantitative - drill down to conclusion

Intro to Qualitative Process

- "Useful when quantitative adjustments cannot be developed"

- Relative comparison analysis – inferior, superior, similar
  - "reflects imperfect nature of real estate markets"
  - bracketing of results can provide a reasonable conclusion

Comp sales qualitative adjustment grid

Comparable Office Building Sales Adjustment Grid
2013 Sales

Sale No.	Rentable Area Sold (Sq. Ft.)	Sale Price Per Sq. Ft.	Date of Sale	Market Conditions	Location	Building Size (Sq. Ft.)	Year Built/ Condition	Tenant Quality	Metro Access	Occupancy	NOI/SF Performance Result	Net Adjustment
SP	250,000		1/1/14								$21.00	
20	161,684	$477.78	2/14/13	Similar	Superior	Superior	Superior	Superior	Superior	Inferior	$33.44	Superior
21	333,948	$525.83	3/4/13	Superior	Similar	Inferior	Superior	Superior	Similar	Superior	$31.02	Superior
22	181,542	$280.38	3/15/13	Similar	Inferior	Superior	Similar	Inferior	Similar	Similar	$19.64	Inferior
23	360,045	$275.87	3/20/13	Similar	Similar	Inferior	Similar	Similar	Similar	Similar	$20.41	Similar
24	32,983	$170.65	4/26/13	Similar	Inferior	Superior	Inferior	Inferior	Similar	Similar	$13.33	Inferior
25	16,900	$286.98	7/31/13	Similar	Similar	Superior	Similar	Similar	Similar	Similar	$21.52	Similar
26	22,833	$260.33	9/16/13	Similar	Similar	Superior	Inferior	Inferior	Similar	Similar	$19.78	Inferior

Adjustment Results

Sale No.	Unadjusted Sale Price Per GLA	Net Adjustment
20	$477.78	Superior
21	$525.83	Superior
25	$286.98	Similar
23	$275.87	Similar
26	$260.33	Inferior
22	$280.38	Inferior
24	$170.65	Inferior

Conclusion $280.00 per square foot

Intro to Quantitative Process

- Statistical analysis, including graphic analysis
- Resembles net income multiplier technique
- But, use of simple linear and polynomial regression hones in on the metric that drives value per square foot

Intro to Quantitative Process

- Especially not duplicative when cap rates are not derived from comp sales
- “Slice and dice” in as many ways as possible (all sales, 2012 sales, 2013 sales, sales with contract rents at market)

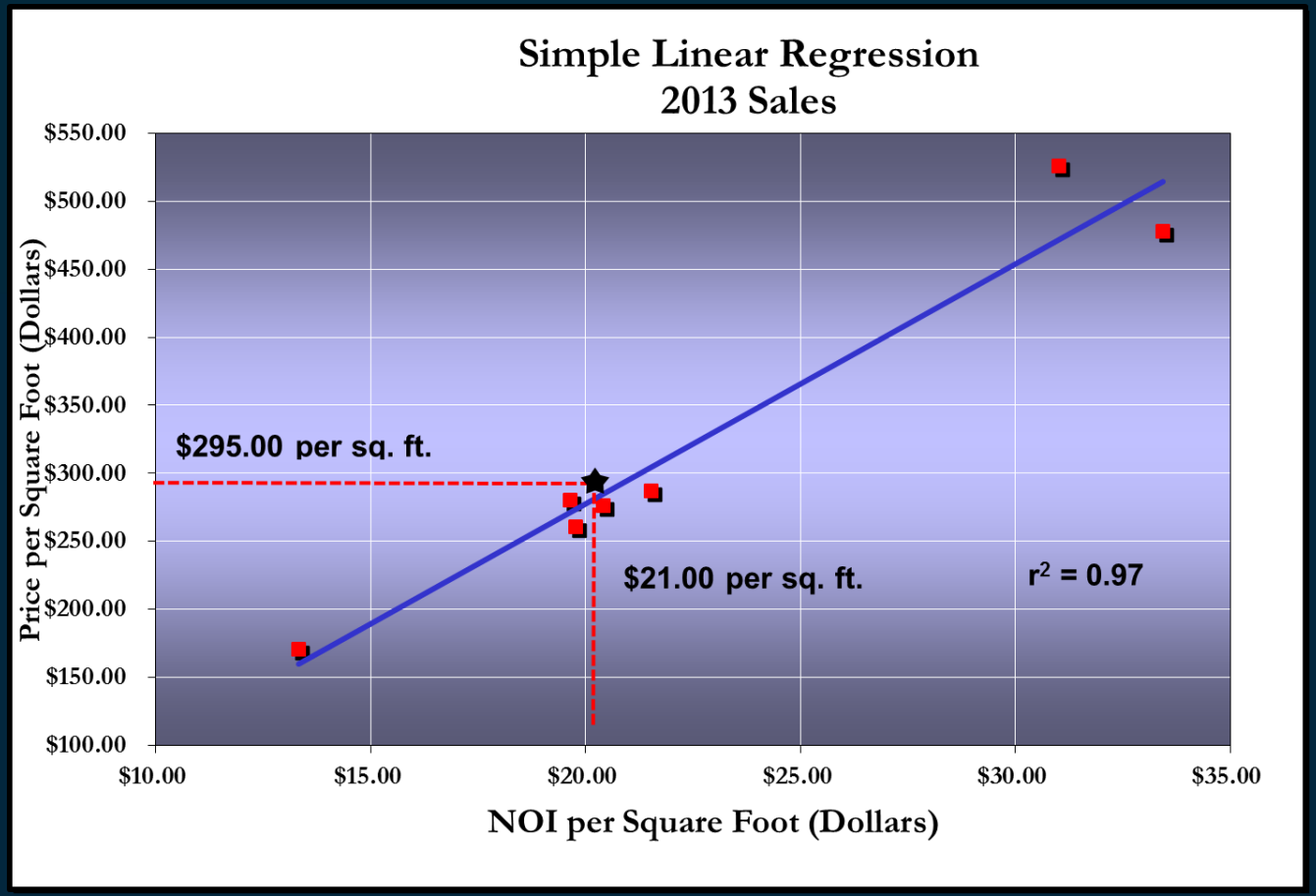
Correlation coefficient (r^2)

- **Definition:**

  Measure that determines (1) the degree to which two variables movements are associated and (2) how certain one can be in making predictions from a certain model graph

- Range of value for the r^2 is -1.0 to 1.0
  - -1.0 indicates a perfect negative correlation
  - 1.0 indicates a perfect positive correlation
  - 0 indicates there is no correlation

Comp sales quantitative adjustment grid



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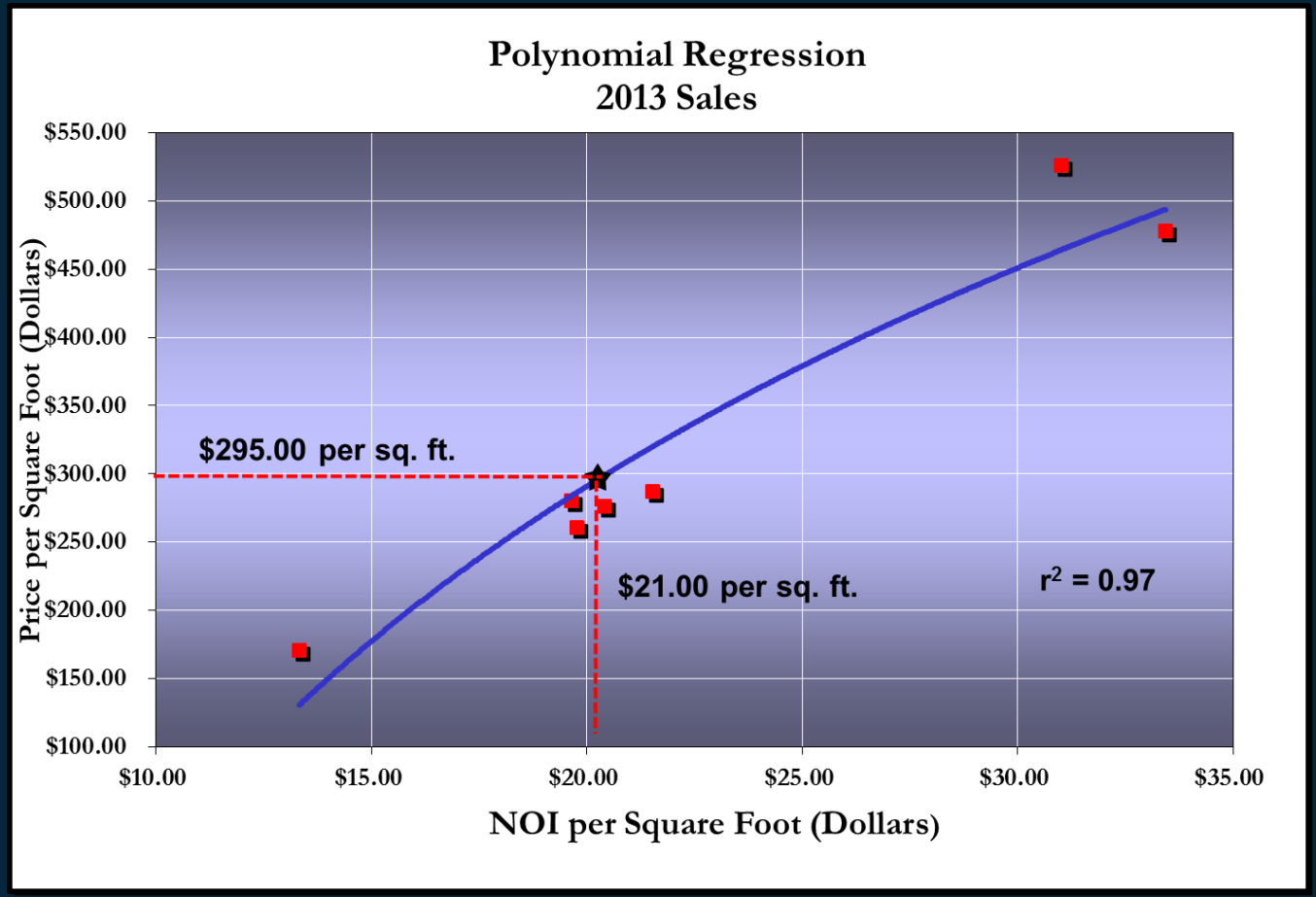

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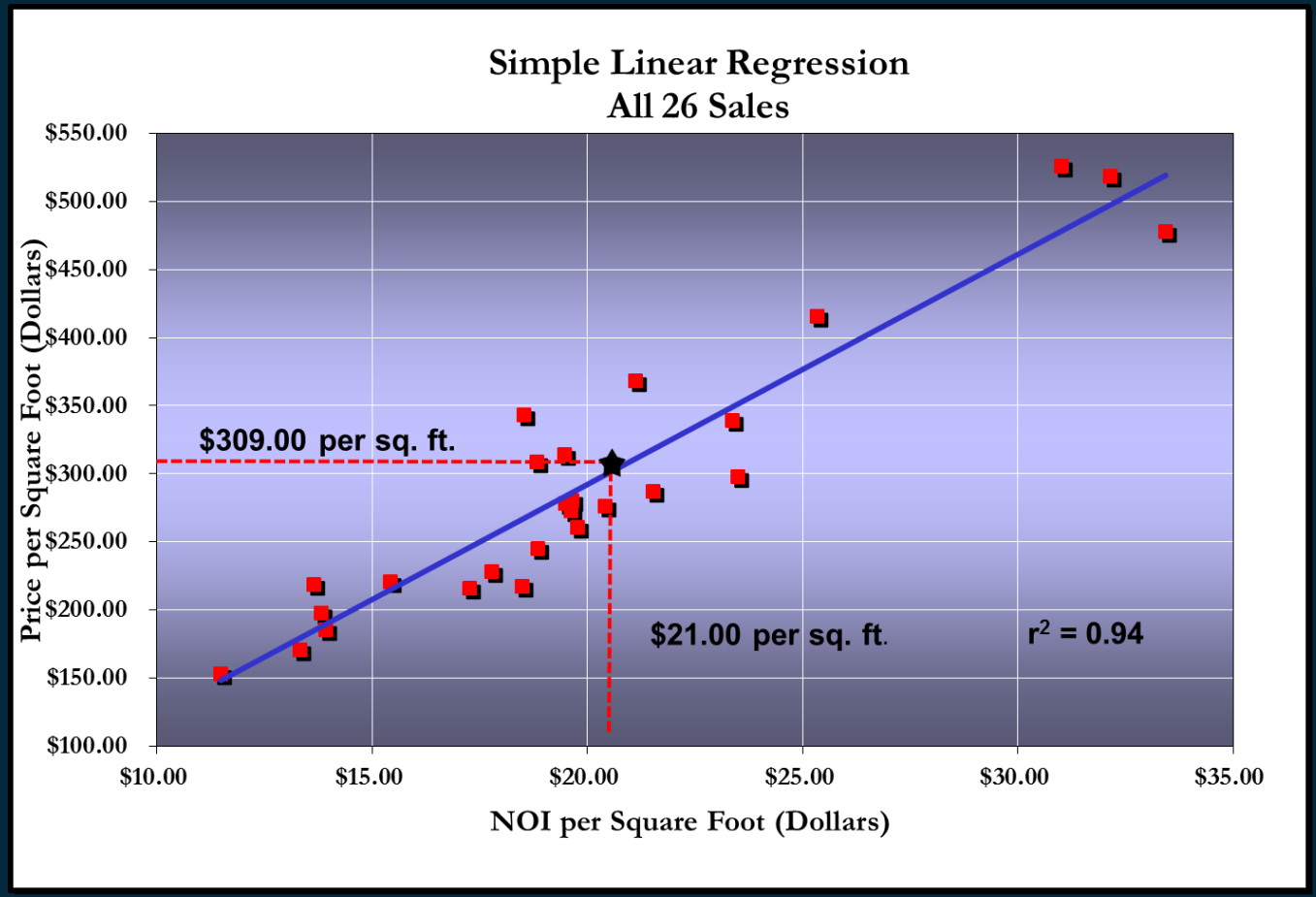

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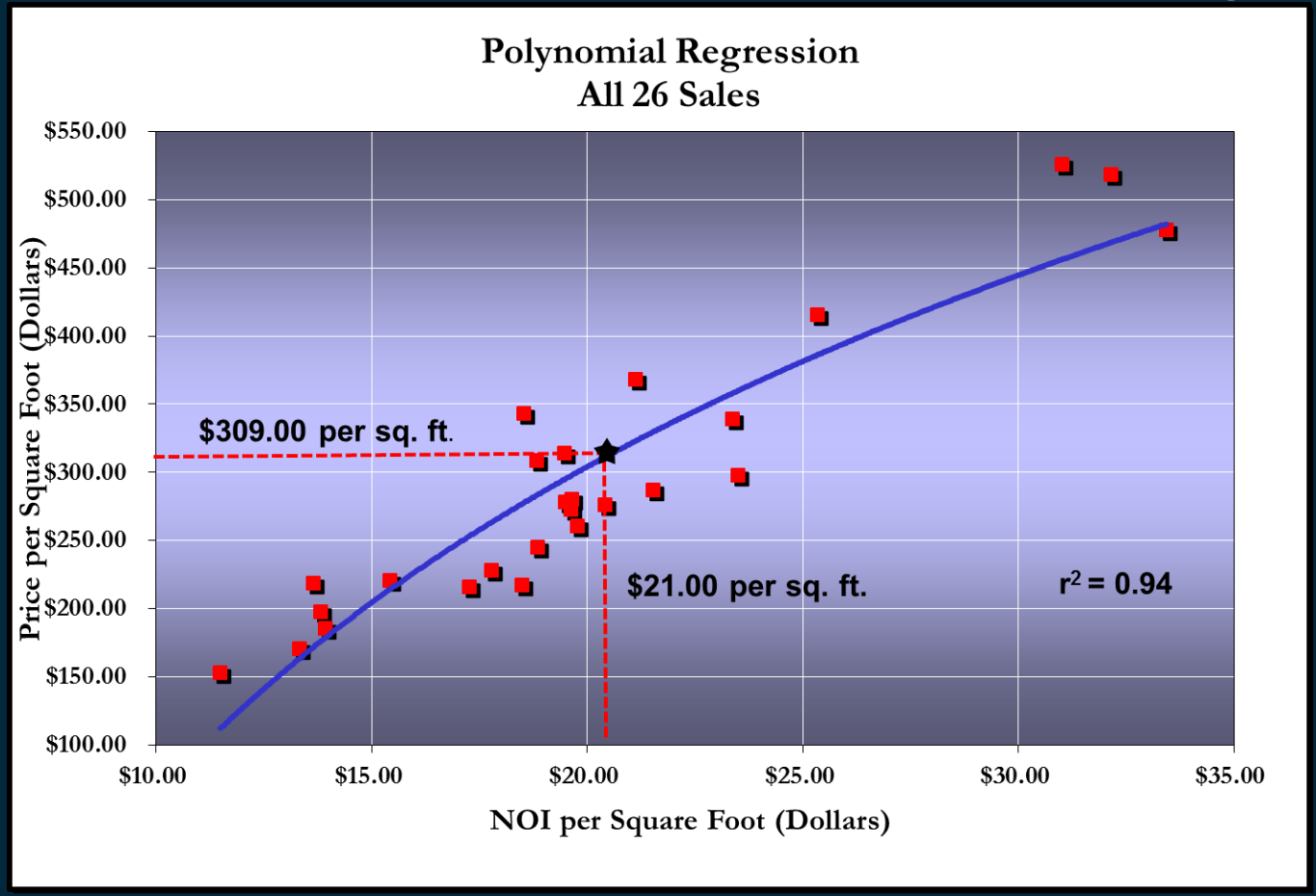

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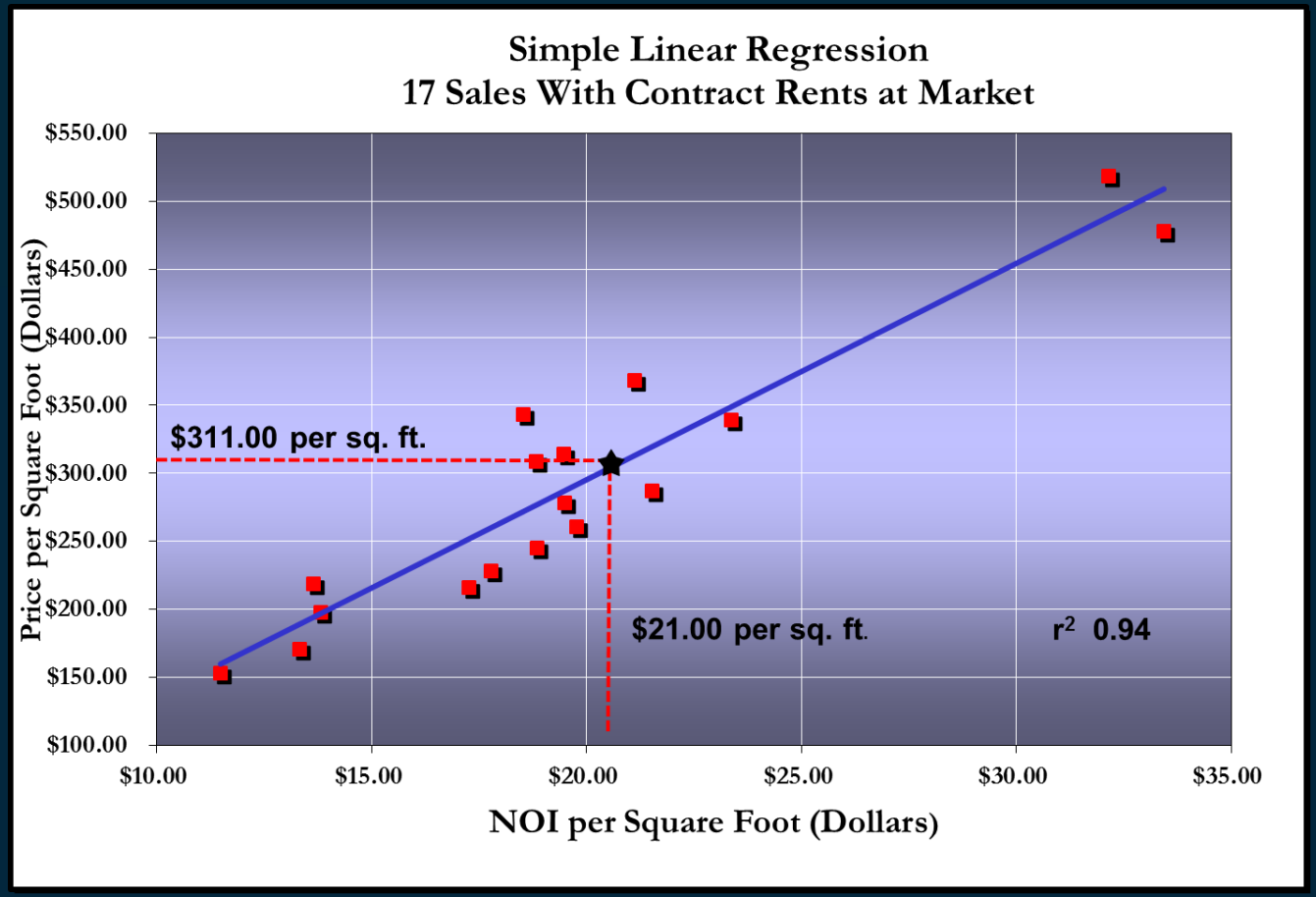

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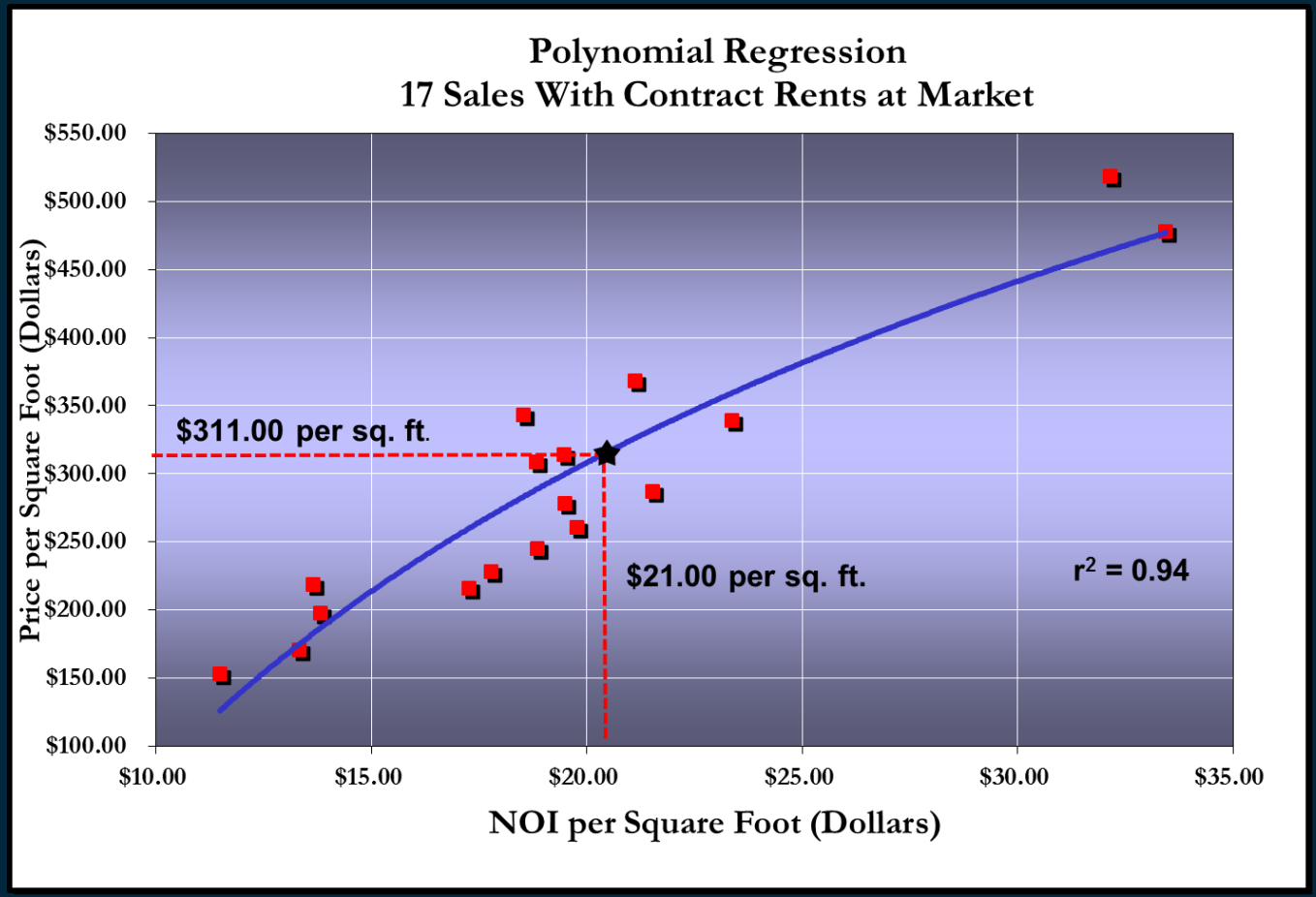

Sales comparison conclusion

Qualitative Adjustment Analysis	**= $70,000,000**
Per Sq. Ft.	**= $280.00**
Quantitative Adjustment Analysis Based on 2013 Comparable Sales	**= $73,750,000**
Per Sq. Ft.	**= $295.00**
Quantitative Adjustment Analysis Based on all 26 Comparable Sales	**= $77,250,000**
Per Sq. Ft.	**= $309.00**
Quantitative Adjustment Analysis Based on 17 Sales with Contract Rent at Market	**= $77,750,000**
Per Sq. Ft.	**= $311.00**
Indicated Value Conclusion	**= $75,000,000**
Per Sq. Ft.	**= $300.00**

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Reconciliation of approaches to value

Income Capitalization Approach = $72,400,000

Sales Comparison Approach = $75,000,000

Conclusion

Range $72,400,000 to $75,000,000

Pinpoint $73,500,000

Reconciliation issues

- What if there is a major divergence in the approach to value indications?
  - One or more of the valuation methods/ techniques cannot be used, usually because of a limited number of comparable sales.
  - Possible solution
    - go back in time and update cap rates from older sales
    - eliminate the method/techniques whose value indication appears to be an outlier
  - Other?

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