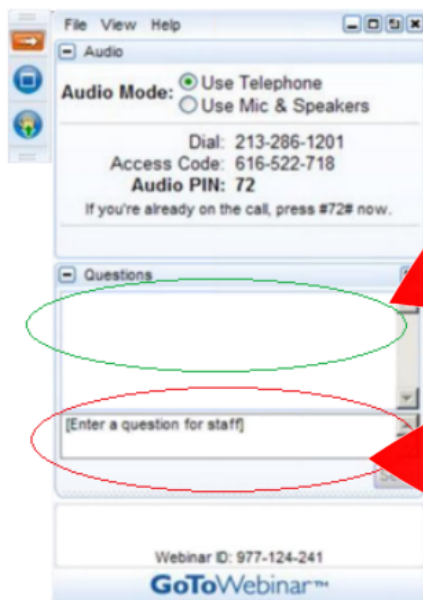


## Documenting the 9 Q Factors



Link to download slides

Chat box to ask questions



Ed Bayer  
Managing Director at Sageworks



Tim McPeak  
Senior Risk Management Consultant  
at Sageworks

Other Complimentary resources available at  
[www.sageworksanalyst.com](http://www.sageworksanalyst.com)

# Today's Objectives

What are qualitative factors?

Qualitative and environmental factors are used to reflect risk in the portfolio not captured by the historical loss data.

## Why the Subjectivity

1. 2006 Interagency Policy Statement on the ALLL
2. Qualitative adjustments are subjective by definition

## How Has it Evolved?

1. Often viewed by bankers as a plug or “fudge” factor for their allowance calculation
2. They draw close scrutiny from regulators

## Largest Obstacles

1. Limiting subjectivity
2. Justifying adjustments

# Why the Subjectivity

1. 2006 Interagency Policy Statement on the ALLL
2. Qualitative adjustments are subjective by definition

## How Has it Evolved?

1. Often viewed by bankers as a plug or “fudge” factor for their allowance calculation
2. They draw close scrutiny from regulators

# Largest Obstacles

1. Limiting subjectivity
2. Justifying adjustments

# How to Justify Adjustments

## Use Recommended Factors

### Internal Factors

Qualitative and quantitative factors that are internal to the company and can be used to justify adjustments. Examples include:

- Changes in the company's credit rating
- Changes in the company's financial performance
- Changes in the company's management
- Changes in the company's business strategy
- Changes in the company's risk profile
- Changes in the company's capital structure
- Changes in the company's liquidity
- Changes in the company's solvency
- Changes in the company's profitability
- Changes in the company's growth
- Changes in the company's innovation
- Changes in the company's sustainability
- Changes in the company's social responsibility
- Changes in the company's environmental impact
- Changes in the company's governance
- Changes in the company's ethics
- Changes in the company's culture
- Changes in the company's values
- Changes in the company's mission
- Changes in the company's vision
- Changes in the company's goals
- Changes in the company's objectives
- Changes in the company's strategies
- Changes in the company's tactics
- Changes in the company's actions
- Changes in the company's results
- Changes in the company's performance
- Changes in the company's outcomes
- Changes in the company's impact
- Changes in the company's legacy
- Changes in the company's reputation
- Changes in the company's brand
- Changes in the company's identity
- Changes in the company's image
- Changes in the company's perception
- Changes in the company's reputation
- Changes in the company's brand
- Changes in the company's identity
- Changes in the company's image
- Changes in the company's perception



### External Factors

Qualitative and quantitative factors that are external to the company and can be used to justify adjustments. Examples include:

- Changes in the market
- Changes in the industry
- Changes in the economy
- Changes in the government
- Changes in the technology
- Changes in the environment
- Changes in the society
- Changes in the culture
- Changes in the values
- Changes in the mission
- Changes in the vision
- Changes in the goals
- Changes in the objectives
- Changes in the strategies
- Changes in the tactics
- Changes in the actions
- Changes in the results
- Changes in the performance
- Changes in the outcomes
- Changes in the impact
- Changes in the legacy
- Changes in the reputation
- Changes in the brand
- Changes in the identity
- Changes in the image
- Changes in the perception



### Others?

Other factors that are not internal or external to the company and can be used to justify adjustments. Examples include:

- Changes in the market
- Changes in the industry
- Changes in the economy
- Changes in the government
- Changes in the technology
- Changes in the environment
- Changes in the society
- Changes in the culture
- Changes in the values
- Changes in the mission
- Changes in the vision
- Changes in the goals
- Changes in the objectives
- Changes in the strategies
- Changes in the tactics
- Changes in the actions
- Changes in the results
- Changes in the performance
- Changes in the outcomes
- Changes in the impact
- Changes in the legacy
- Changes in the reputation
- Changes in the brand
- Changes in the identity
- Changes in the image
- Changes in the perception

## Consider Qualitative Scoring Matrix

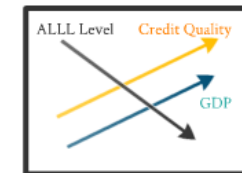
Change from Prior Period		Adjustment
Significant Improvement from Prior Period		0.10
Improvement from Prior Period		-0.12
Moderate Improvement from Prior Period		-0.14
Slight Improvement from Prior Period		-0.16
No Change from Prior Period		0.00
Slight Deterioration from Prior Period		0.16
Moderate Deterioration from Prior Period		0.14
Improvement from Prior Period		0.12
Significant Improvement from Prior Period		0.10

Qualitative Rate Factor Adjustments			
Rate Factor	Change from Prior Period	Current Score	Adjusted Score
1. Company's financial strength and solvency, including changes in borrowing capacity, debt to capital, debt to equity, etc.	Stable	1.00	1.00
2. Company's credit rating	Stable	1.00	1.00
3. Company's management	Stable	1.00	1.00
4. Company's business strategy	Stable	1.00	1.00
5. Company's innovation	Stable	1.00	1.00
6. Company's sustainability	Stable	1.00	1.00
7. Company's social responsibility	Stable	1.00	1.00
8. Company's environmental impact	Stable	1.00	1.00
9. Company's governance	Stable	1.00	1.00
10. Company's ethics	Stable	1.00	1.00
11. Company's culture	Stable	1.00	1.00
12. Company's values	Stable	1.00	1.00
13. Company's mission	Stable	1.00	1.00
14. Company's vision	Stable	1.00	1.00
15. Company's goals	Stable	1.00	1.00
16. Company's objectives	Stable	1.00	1.00
17. Company's strategies	Stable	1.00	1.00
18. Company's tactics	Stable	1.00	1.00
19. Company's actions	Stable	1.00	1.00
20. Company's results	Stable	1.00	1.00
21. Company's performance	Stable	1.00	1.00
22. Company's outcomes	Stable	1.00	1.00
23. Company's impact	Stable	1.00	1.00
24. Company's legacy	Stable	1.00	1.00
25. Company's reputation	Stable	1.00	1.00
26. Company's brand	Stable	1.00	1.00
27. Company's identity	Stable	1.00	1.00
28. Company's image	Stable	1.00	1.00
29. Company's perception	Stable	1.00	1.00

## Ensure Directional Consistency

As factors change direction, qualitative rates should change accordingly

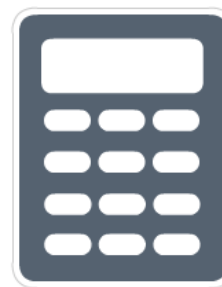




# Use Recommended Factors

## Internal Factors

- Lending policies and procedures, including changes in underwriting standards and collections, charge offs, and recovery practices
- Nature and volume of the portfolio and terms of loans
- Experience, depth, and ability of lending management
- Volume and severity of past due loans and other similar conditions
- Quality of the organization's loan review system
- Existence and effect of any concentrations of credit and changes in the levels of such concentrations



## External Factors

- Value of underlying collateral for collateral-dependent loans
- International, national, regional, and local conditions
- Effect of other external factors (i.e. competition, legal and regulatory requirements) on the level of estimated credit losses



## Others?

Can be used for institutions that have unique risk scenarios to incorporate (e.g. for a bank with a large concentration of loans to Native American businesses, tribal news might be a significant factor)

# Internal Factors

- Lending policies and procedures, including changes in underwriting standards and collections, charge offs, and recovery practices
- Nature and volume of the portfolio and terms of loans
- Experience, depth, and ability of lending management
- Volume and severity of past due loans and other similar conditions
- Quality of the organization's loan review system
- Existence and effect of any concentrations of credit and changes in the levels of such concentrations

# External Factors

- Value of underlying collateral for collateral-dependent loans
- International, national, regional, and local conditions
- Effect of other external factors (i.e. competition, legal and regulatory requirements) on the level of estimated credit losses

Others?

- Effect of other external factors (i.e. competition, legal and regulatory requirements) on the level of estimated credit losses

# Others?

Can be used for institutions that have unique risk scenarios to incorporate (e.g. for a bank with a large concentration of loans to Native American businesses, tribal news might be a significant factor)



# Consider Qualitative Scoring Matrix

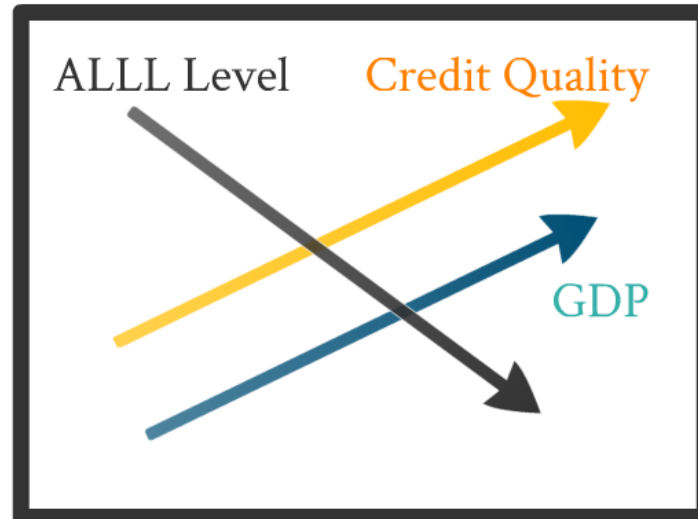
Change from Prior Period	Adjustment
Significant Improvement from Prior Period	-0.16
Improvement from Prior Period	-0.12
Moderate Improvement from Prior Period	-0.08
Slight Improvement from Prior Period	-0.04

## Qualitative Risk Factor Adjustments

Risk Factor	Change from Prior Period	Current Adjustment	Comments
Changes in lending policies and procedures, including changes in underwriting standards and collections, charge offs, and recovery	Moderate Improvement ▼	-0.3000%	
Changes in international, national, regional, and local conditions.	Slight Improvement ▼	-0.2000%	Increase in Sageworks industry
Changes in the nature and volume of the portfolio and terms of loans.	Slight Improvement ▼	-0.2000%	Decrease in delinquency; see
Changes in the experience, depth, and ability of lending management.	Same ▼	0.0000%	No change in staff

# Ensure Directional Consistency

As factors change direction, qualitative rates should change accordingly



# Drivers for Q Factors

Each qualitative factor has drivers that are the recommended variables to measure over time.

## Internal Drivers

Lending policies and procedures	<i>Noted changes in policy requirements, new procedures, % renewed with policy exceptions</i>
Nature and volume of the portfolio and terms of loans	<i>Loan growth, maturity analysis, vintage analysis, pricing compared to benchmarks, new products</i>
Experience, depth, and ability of lending management	<i># of new positions, % with &gt;good performance, change in % of staff &lt; 3yrs' experience</i>

## Internal Drivers (Cont)

Volume and severity of past due loans	<i>% of segment past due or on nonaccrual, % change in segment past dues, # or % of TDRs</i>
Quality of loan review system	<i>Exception rates per LR report, grade variances, frequency of reviews</i>
Existence and effect changes in the levels of such concentrations	<i>Concentration % of portfolio, concentration as % of capital, segments over limits</i>

## External Drivers

Value of underlying collateral for collateral-dependent loans	<i># of stale appraisals, % of appraisals &gt;2 yrs old, # of RE-secured loans with LTV &gt;70%</i>
International, national, regional, and local conditions	<i>National &amp; local unemployment, GDP rates, industry or economic data</i>
Effect of other external factors (i.e. competition, legal and regulatory requirements) on the level of estimated credit losses	<i>As needed but could include litigation, enforcement actions in process, new competitors</i>

# Internal Drivers

Lending policies and procedures

*Noted changes in policy requirements, new procedures, % renewed with policy exceptions*

Nature and volume of the portfolio and terms of loans

*Loan growth, maturity analysis, vintage analysis, pricing compared to benchmarks, new products*

Experience, depth, and ability of lending management

*# of new positions, % with >good performance, change in % of staff < 3yrs' experience*



## Internal Drivers (Cont)

Volume and severity of past due loans	<i>% of segment past due or on nonaccrual, % change in segment past dues, # or % of TDRs</i>
---------------------------------------	--

Quality of loan review system	<i>Exception rates per LR report, grade variances, frequency of reviews</i>
-------------------------------	---

Existence and effect changes in the levels of such concentrations	<i>Concentration % of portfolio, concentration as % of capital, segments over limits</i>
---	--

# External Drivers

Value of underlying collateral for collateral-dependent loans

*# of stale appraisals, % of appraisals >2 yrs old, # of RE-secured loans with LTV >70%*

International, national, regional, and local conditions

*National & local unemployment, GDP rates, industry or economic data*

Effect of other external factors (i.e. competition, legal and regulatory requirements) on the level of estimated credit losses

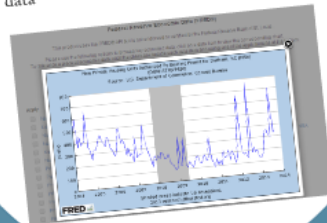
*As needed but could include litigation, enforcement actions in process, new competitors*

# External Data

Examples of external data sources that can be used for drivers

## FRED

Federal Reserve Economic Data (FRED) provides free, customizable macro-level data



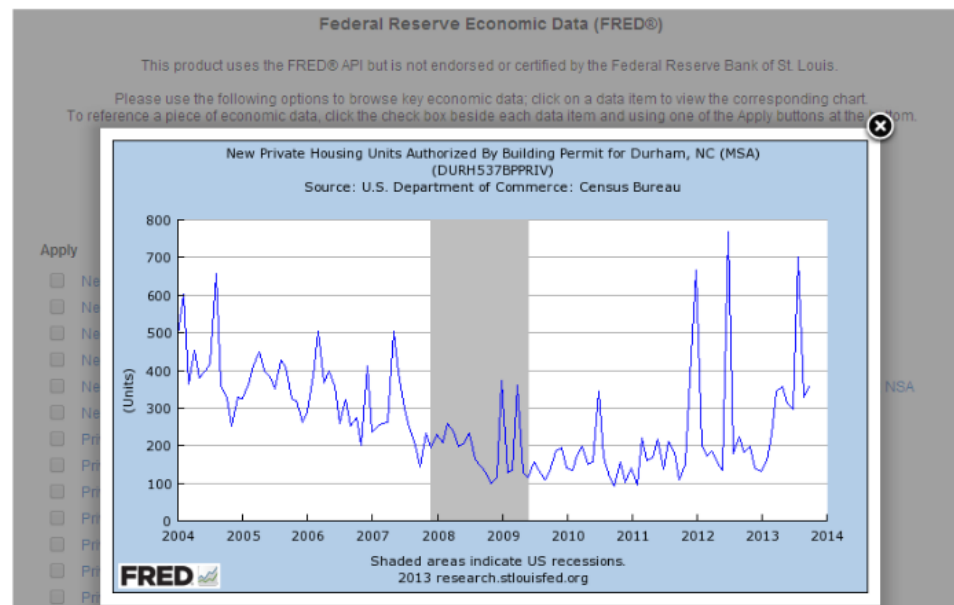
## Sageworks Industry Data

Objective industry analysis based on financial performance metrics weighted by NAICS code  
More granular analysis to reflect the unique industry composition of each pool

A screenshot of the Sageworks Industry Data website. It displays a table titled 'Sageworks Industry Data' with columns for 'Industry', 'Revenue', 'Profit', and 'Assets'. The table lists various industries such as 'Agriculture', 'Manufacturing', 'Retail', and 'Healthcare'. The data is presented in a clean, professional format with a white background and blue text.

FRED

Federal Reserve Economic Data (FRED)  
provides free, customizable macro-level  
data



# Sageworks Industry Data

Objective industry analysis based on financial performance metrics weighted by NAICS code

More granular analysis to reflect the unique industry composition of each pool

## Sageworks Industry Data

### 4. Commercial and industrial loans

Industry Score: -0.0153

	Weighted Industry Average	All Industries Average	Standard Deviations from All Industries Average
Sales % Change	9.49%	9.12%	0.0116
Net Profit Margin	6.40%	6.58%	-0.0089
Net Profit Margin % Change	17.71%	21.85%	-0.0504
Current Ratio	3.02	3.22	-0.0404

#### Pool Summary:

Total Pool Balance:	\$5,664,936.00
2389 - Other Specialty Trade Contractors (4):	\$194,875.00
3273 - Cement and Concrete Product Manufacturing (1):	\$50,000.00
4233 - Lumber and Other Construction Materials Merchant Wholesalers (1):	\$25,000.00
4235 - Metal and Mineral (except Petroleum) Merchant Wholesalers (1):	\$11,000.00
4521 - Department Stores (1):	\$49,000.00
5239 - Other Financial Investment Activities (1):	\$100,000.00
5311 - Lessors of Real Estate (2):	\$50,801.00

## Sageworks Industry Data

### 4. Commercial and industrial loans

Industry Score: -0.0153

	Weighted Industry Average	All Industries Average	Standard Deviations from All Industries Average
Sales % Change	9.49%	9.12%	0.0116
Net Profit Margin	6.40%	6.58%	-0.0089
Net Profit Margin % Change	17.71%	21.85%	-0.0504
Current Ratio	3.02	3.22	-0.0404

### Pool Summary:

Total Pool Balance:	\$5,664,936.00
2389 - Other Specialty Trade Contractors (4):	\$194,875.00
3273 - Cement and Concrete Product Manufacturing (1):	\$50,000.00
4233 - Lumber and Other Construction Materials Merchant Wholesalers (1):	\$25,000.00
4235 - Metal and Mineral (except Petroleum) Merchant Wholesalers (1):	\$11,000.00
4521 - Department Stores (1):	\$49,000.00
5239 - Other Financial Investment Activities (1):	\$100,000.00
5311 - Lessors of Real Estate (2):	\$50,801.00

# Conclusion

Top 3 things to remember from today's webinar

Use recommended  
Factors and Drivers

Consider a  
Qualitative Scoring  
Matrix to limit  
subjectivity

Ensure directional  
consistency

Document, document, document...and then document some more.



## Allowance Calculations for FAS 5 (ASC 450-20) Loans

Pool	Total Loan Balance	Historical Loss Rate	Historical Loss Reserve	Qualitative Adjustments	Qualitative Reserve Adjustment	Adjusted Historical Loss Rate	Total Reserve
COMMERCIAL	\$120,261,018.61	0.7278%	\$870,885.62	1.3200%	\$1,579,512.25	2.0478%	\$2,450,397.86
CONSUMER	\$3,290,330.07	0.1157%	\$3,806.91	-0.1200%	(\$3,948.40)	-0.0043%	\$0.00
CRE-HEALTHCARE	\$50,917,690.47	3.4274%	\$1,745,152.92	-0.1200%	(\$61,101.23)	3.3074%	\$1,684,051.69
CRE-OFFICE	\$34,322,743.82	0.0000%	\$0.00	-0.1200%	(\$41,187.29)	-0.1200%	\$0.00
CRE-OTHER	\$146,944,587.45	0.0188%	\$27,625.58	-0.1200%	(\$176,333.50)	-0.1012%	\$0.00
CRE-RETAIL	\$87,960,359.77	0.0000%	\$0.00	-0.1200%	(\$105,552.43)	-0.1200%	\$0.00
FRANCHISE	\$41,840,450.76	3.5262%	\$1,475,377.97	-0.1200%	(\$50,208.54)	3.4062%	\$1,425,169.43
GROCERY	\$42,150,783.50	0.2431%	\$102,468.55	-0.1200%	(\$50,580.94)	0.1231%	\$51,887.61
HARDWARE	\$27,404,832.52	-0.1166%	(\$31,954.03)	-0.1200%	(\$32,885.80)	-0.2366%	\$0.00
HELOC	\$27,110,150.03	0.0512%	\$13,880.40	-0.1200%	(\$32,532.18)	-0.0688%	\$0.00
MULTIFAMILY	\$237,913,812.05	0.0000%	\$0.00	-0.1200%	(\$285,496.57)	-0.1200%	\$0.00
NON-PROFIT	\$50,840,310.69	0.6136%	\$311,956.15	-0.1200%	(\$61,008.37)	0.4936%	\$250,947.77
SBA	\$26,726,956.78	2.5522%	\$682,125.39	-0.1200%	(\$32,072.35)	2.4322%	\$650,053.04
SINGLEFAMILY	\$307,938,980.98	0.0014%	\$4,311.15	-0.1200%	(\$369,526.78)	-0.1186%	\$0.00
Unknown	\$400,000.00	0.0000%	\$0.00	0.0000%	\$0.00	0.0000%	\$0.00
<b>Totals</b>	<b>\$1,206,023,007.50</b>		<b>\$5,205,636.61</b>		<b>\$277,077.86</b>		<b>\$6,512,507.42</b>

### Loss Rate Calculation for Risk Pool: COMMERCIAL

#### Risk Pool Summary

Total Loan Balance	Historical Loss Rate	Historical Loss Reserve	Qualitative Adjustments	Qualitative Reserve Adjustment	Adjusted Historical Loss Rate	Total Reserve Amount
\$120,261,018.61	0.7278%	\$870,885.62	1.3200%	\$1,579,512.25	2.0478%	\$2,450,397.86

#### Historical Loss Rates

Period Ending Date	6/30/2011	6/30/2010	3/31/2010	Average
Loss Rate	1.1123%	1.0306%	0.0404%	0.7278%

#### Qualitative Adjustments

Risk Factor	Change from Prior Period	Prior Adjustment	Current Adjustment	Overall Adjustment
The effect of other external factors (ie competition, legal and regulatory requirements) on the level of estimated credit losses.	Same	0.0000%	0.0000%	0.0000%
Changes in lending policies and procedures, including changes in underwriting standards and collections, charge offs, and recovery practices.	Same	0.0000%	0.0000%	0.0000%
Changes in international, national, regional, and local conditions. <sup>1</sup>	Slight Improvement	0.6000%	-0.0400%	0.5600%
Changes in the nature and volume of the portfolio and terms of loans.	Same	0.3200%	0.0000%	0.3200%
Changes in the experience, depth, and ability of lending management.	Same	0.0000%	0.0000%	0.0000%
Changes in the volume and severity of past due loans and other similar conditions. <sup>2</sup>	Slight Improvement	0.2800%	-0.0400%	0.2400%
Changes in the quality of the organization's loan review system.	Same	0.0000%	0.0000%	0.0000%
Changes in the value of underlying collateral for collateral dependent loans.	Same	0.0000%	0.0000%	0.0000%
The existence and effect of any concentrations of credit and changes in the levels of such concentrations. <sup>3</sup>	Slight Decline	0.1600%	0.0400%	0.2000%
<b>Total Qualitative Factor Adjustments:</b>		<b>1.3600%</b>	<b>-0.0400%</b>	<b>1.3200%</b>
<b>Adjusted Loss Rate</b>				<b>2.0478%</b>

<sup>1</sup> Macro economic conditions in the US continue to improve. Also, local market conditions are improving as well. See attached housing starts and unemployment info.

<sup>2</sup> See attached aging analysis and note lower levels of past dues relative to first three quarters of 2013

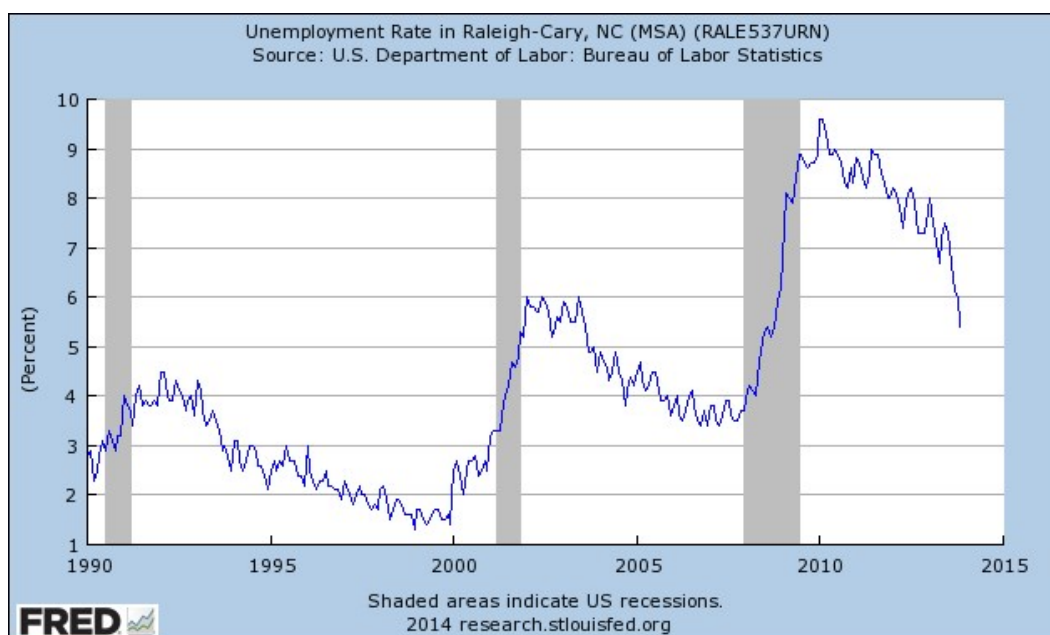
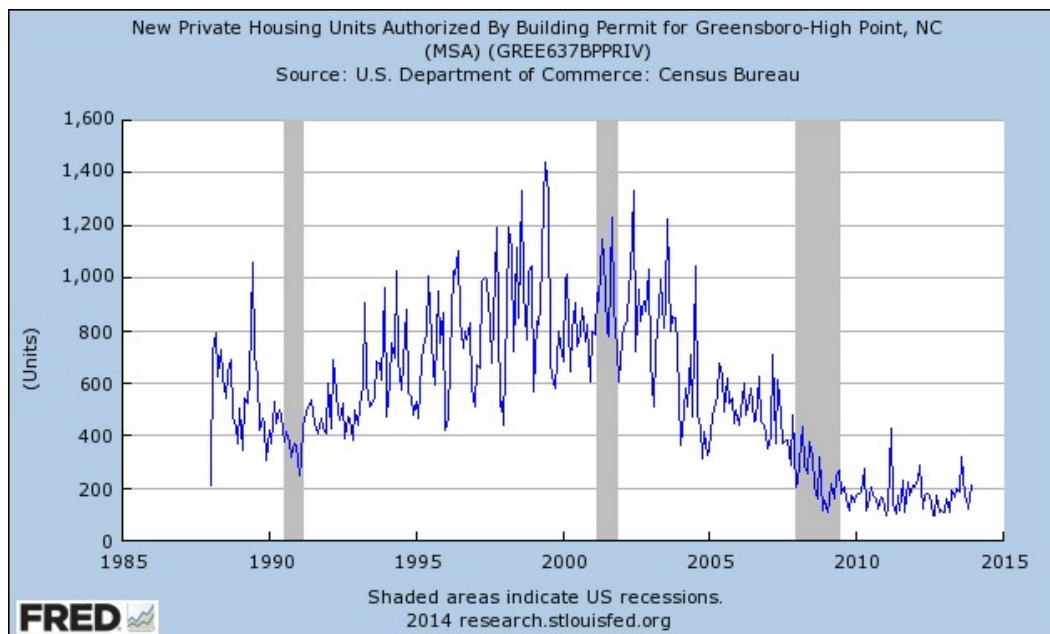
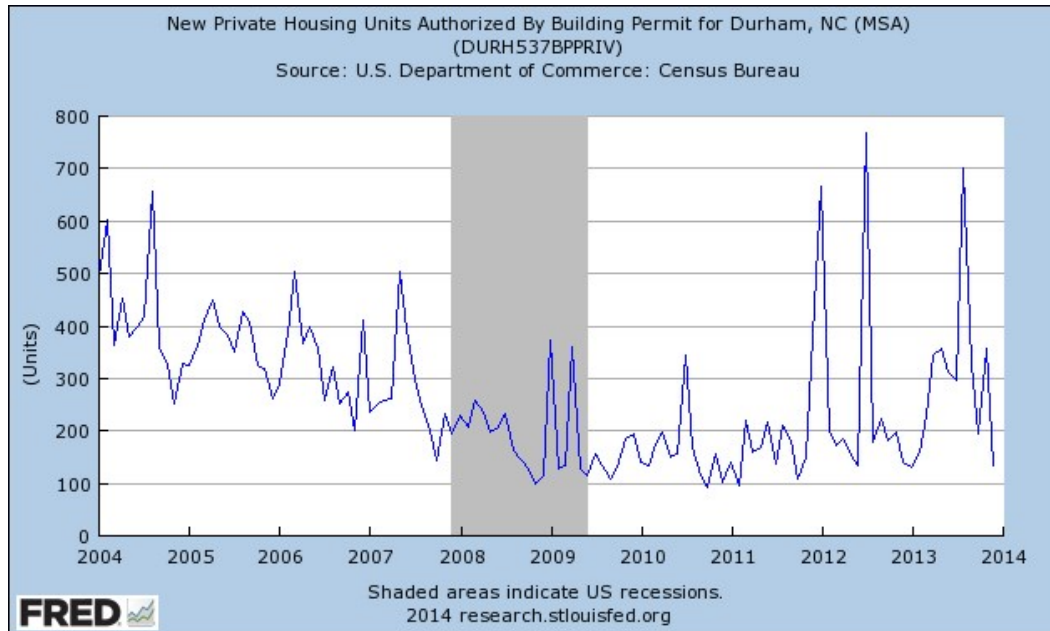
<sup>3</sup> Note attached Sagerworks industry data for Commercial pool

#### Supporting Industry Data

Industry Score: **0.1407**

	Weighted Industry Average	All Industries Average	Standard Deviations from All Industries Average
Sales % Change	11.71%	5.46%	0.2180
Net Profit Margin	11.84%	8.47%	0.1663
Net Profit Margin % Change	29.58%	18.61%	0.1361
Current Ratio	3.29	3.29	0.0016





Disclosure - Aging Analysis of Loans by Segment

12/31/2013

Product Code	30-59 Days	60-89 Days	90+ Days	Total Past Due	Current	Total Loans	90+ Days/Accruing	Non-Accrual Loans
COMMERCIAL	\$2,282,747.18	\$64,828.54	\$7,202,011.33	\$9,549,587.05	\$118,443,292.39	\$127,993,479.42	\$111,369.00	\$8,821,132.34
CONSUMER	\$490,112.00	\$29,321.33	\$21,574.81	\$530,008.14	\$2,877,296.80	\$3,377,304.74	\$0.00	\$21,574.81
CRE-HEALTHCARE	\$0.00	\$6,041,826.18	\$964,879.67	\$7,006,905.85	\$58,625,172.80	\$65,131,878.45	\$0.00	\$15,213,987.98
CRE-OFFICE	\$0.00	\$0.00	\$116,415.72	\$116,415.72	\$35,625,227.67	\$35,741,643.39	\$0.00	\$116,415.72
CRE-OTHER	\$1,741,873.57	\$496,543.86	\$4,837,201.24	\$7,075,618.69	\$146,227,539.74	\$153,303,158.43	\$0.00	\$5,633,745.12
CRE-RETAIL	\$53,715.88	\$0.00	\$0.00	\$53,715.88	\$92,602,440.13	\$92,656,156.01	\$0.00	\$4,895,796.24
FRANCHISE	\$0.00	\$0.00	\$3,468,626.70	\$3,468,626.70	\$41,040,450.76	\$45,309,079.46	\$0.00	\$3,468,626.70
GROCERY	\$633,432.53	\$0.00	\$1,827,971.84	\$2,461,404.37	\$42,243,393.89	\$44,504,798.26	\$0.00	\$2,353,874.76
WAREHOUSE	\$183,478.00	\$0.00	\$1,740,140.56	\$1,923,618.56	\$35,882,820.47	\$37,806,439.03	\$0.00	\$4,845,695.15
HELOC	\$100,007.90	\$367,470.65	\$634,506.00	\$1,101,985.15	\$26,653,122.06	\$27,755,107.21	\$0.00	\$634,506.00
MULTIFAMILY	\$102,108.99	\$0.00	\$4,445,564.00	\$4,547,672.99	\$245,531,796.07	\$250,082,489.74	\$442,371.53	\$14,965,866.21
NON-PROFIT	\$0.00	\$0.00	\$0.00	\$0.00	\$52,911,792.08	\$52,911,792.08	\$0.00	\$2,071,481.39
SBA	\$625,008.39	\$0,415.73	\$3,579,209.58	\$4,209,713.70	\$25,866,624.26	\$30,076,337.96	\$0.00	\$3,596,824.21
SINGLEFAMILY	\$5,251,116.20	\$3,375,732.30	\$9,394,519.95	\$18,021,368.45	\$299,820,771.66	\$317,842,140.14	\$0.00	\$9,394,519.95
Total:	\$11,423,686.62	\$16,879,938.61	\$38,056,244.71	\$66,359,869.94	\$1,226,151,706.38	\$1,288,491,564.32	\$553,768.53	\$75,846,149.24

Note trends in past dues