Concentration Risk and Abnormal Activity Monitoring Best Practice

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Concentration Risk

- In accordance with NCUA letter 10-CU-03 credit unions must:
 - Develop a methodology for monitoring loan segments that have similar exposures to risk including any named borrowers
 - Test segments that exceed 100% of capital on a quarterly basis and determine the impact on capital for economic downturns
 - Establish Board approved limits for each segment including a loss mitigation plan

Methodology

Five Step Process

- Identify find risks by dividing up the portfolio into segments and review all named borrowers
- Test determine the amount of loss the portfolio can withstand before threatening the safety and soundness of the CU
- Monitor regularly review to performance to ensure readiness in the face of economic crisis
- Justify set limits on the growth of each segment that can be validated against portfolio performance
- Actions take action once limits are reached or portfolio performance threatens the safety and soundness of the credit union



PCA Standards For Capitalization

| STATUTORY DEFINITION | NET WORTH RATIO |
|--------------------------------|-----------------|
| WELL CAPITALIZED | 7% OR ABOVE |
| ADEQUATELY CAPITALIZED | 6% TO 6.99% |
| UNDERCAPITALIZED | 4% TO 5.99% |
| SIGNIFICANTLY UNDERCAPITALIZED | 2% TO 3.99% |
| CRITICALLY UNDERCAPITALIZED | LESS THAN 2% |

Named Borrower

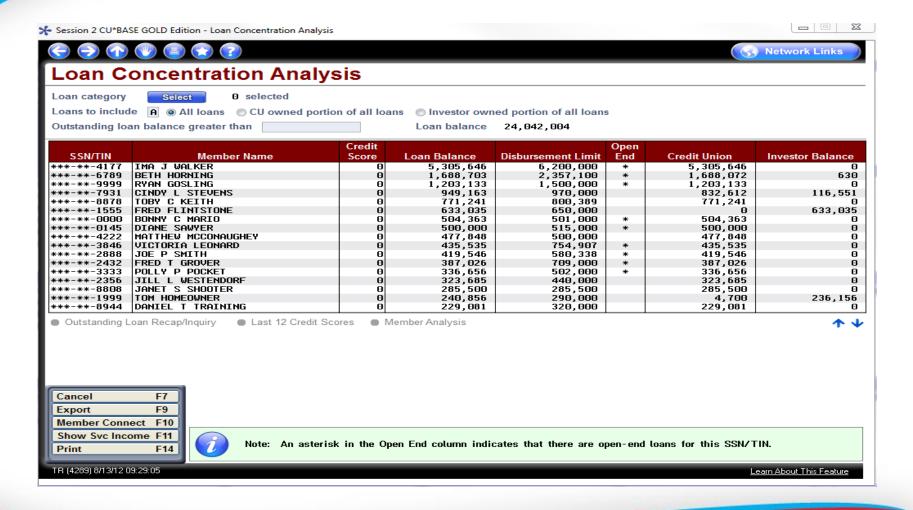
 One individual or a group of individuals with similar income streams

Generally test against 15% of capital

 Develop a narrative which demonstrates you have performed your due diligence and have additional loan covenants to protect the credit unions position



Named Borrower MNAUDT #15 (15% of capital)



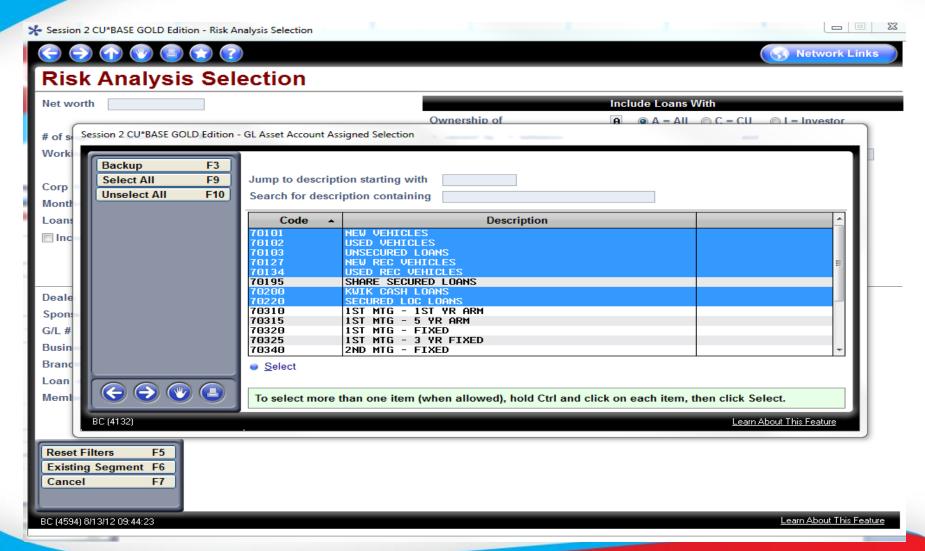
Developing Loan Segments

- Generally segments are grouped by loan category or general ledger code
- The following is a list of common segments which Audit Link uses when completing the analysis
 - Consumer secured
 - Indirect (if large enough)
 - Consumer unsecured
 - 1st mortgage real estate
 - Other real estate
 - Commercial

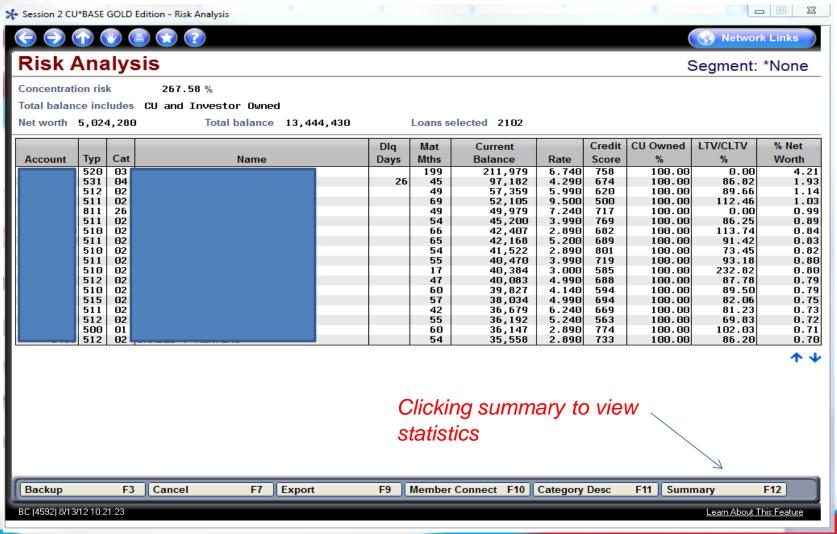
Developing Loan Segments MNAUDT #16

| * s | ession 2 CU*BASE GOLD Edition - Risk Analysis Sele | ection | | | | | |
|-------------------------|--|--------------|--|---|--|--|--|
| (| | | | Network Links | | | |
| Risk Analysis Selection | | | | | | | |
| 1 | risk Alialysis Selection |) | | | | | |
| N | et worth | | Include Loans With | | | | |
| | Enter | net worth | Ownership of | A A = AII C = CU I = Investor | | | |
| # | of segments defined 0 not in | cluding ALLL | % owned by CU between | and | | | |
| W VV | orking with segment *None | _ | Current balances between | and | | | |
| | | | Interest rates between | 0.000 and 0.000 | | | |
| C | orp ID 00 | | % of net worth over | 0.00 | | | |
| ıı M | onth/year to process Jul 2012 | | Current credit scores between | and | | | |
| Lo | oans opened on or before Jul 31, 2012 | [MMDDYYYY] | Maturing after | [MMYYYY] | | | |
| | Include written off loans | | # of days delinquent between | and | | | |
| | | | LTV % between | and | | | |
| | | | | | | | |
| D | ealer code Select | | Loan category | Select | | | |
| S | ponsor code Select | | Loan purpose code | Select | | | |
| G | /L# | | Loan security code | Select | | | |
| В | usiness unit Select | | Collateral type | Select | | | |
| В | ranch/location # Select | | Loan process type | Select | | | |
| Lo | oan officer ID Select | | States where collateral resides | Select | | | |
| М | ember designation Select | | States where member resides | Select | | | |
| | | | | | | | |
| | | | | | | | |
| | Reset Filters F5 | | | | | | |
| | existing Segment F6 | | | | | | |
| | Cancel F7 | | | | | | |
| | | | | | | | |
| ВС | (4594) 8/13/12 09:44:23 | | | <u>Learn About This Feature</u> | | | |
| S G G B B B M M | ponsor code /L # Select usiness unit ranch/location # Select san officer ID select ember designation Reset Filters Existing Segment F6 Cancel F7 | | Loan purpose code Loan security code Collateral type Loan process type States where collateral resides | Select Select Select Select Select Select | | | |

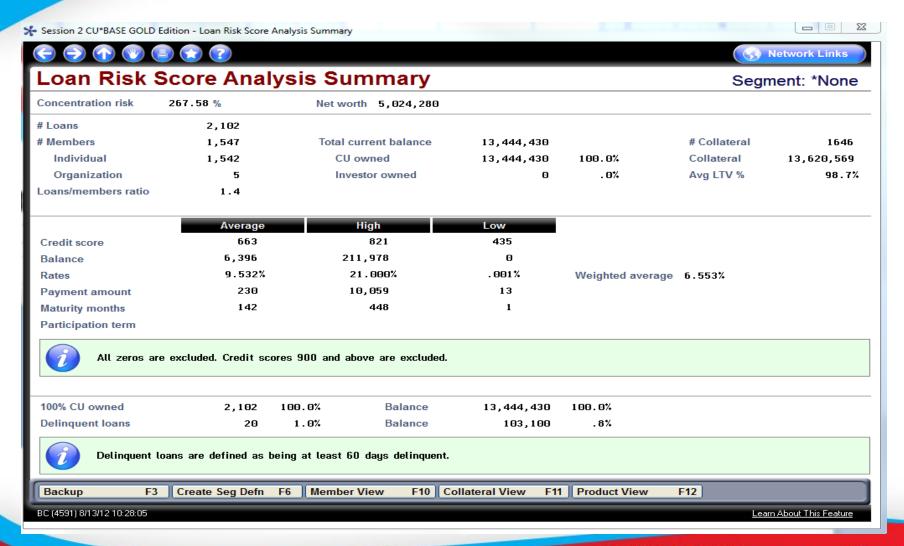
Configuring Loan Segments



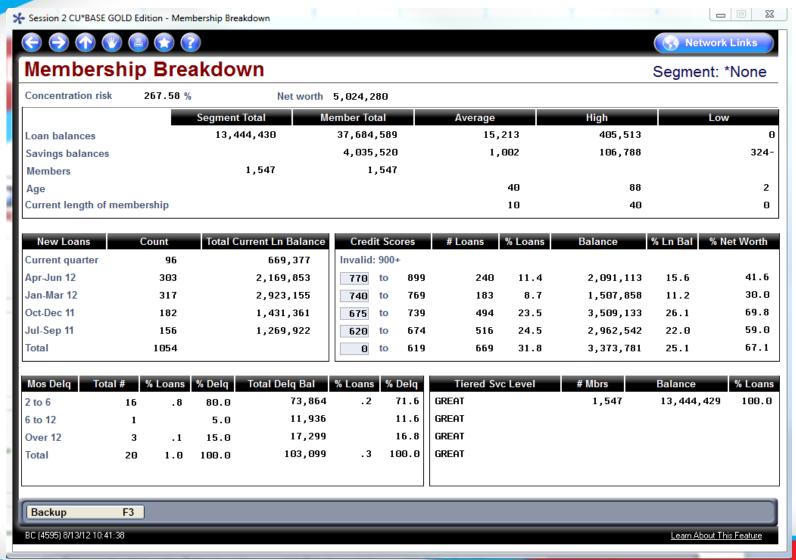
Segment Analysis



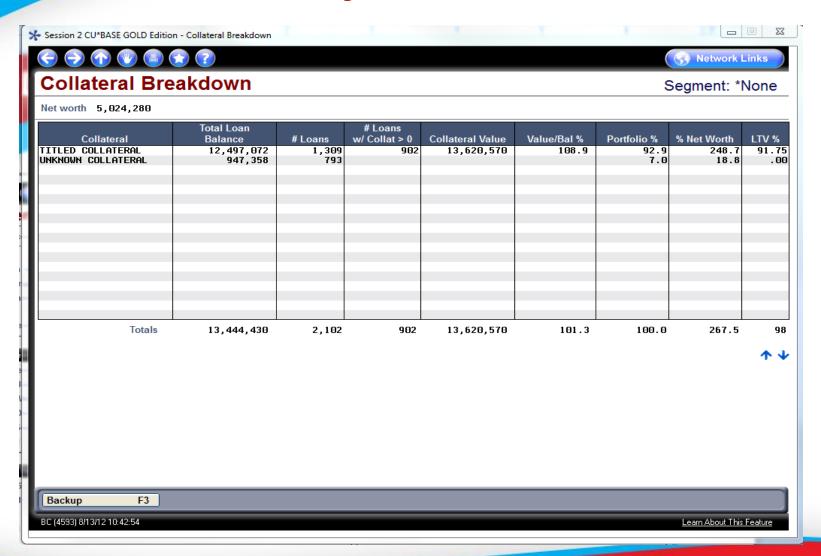
Summary Statistics



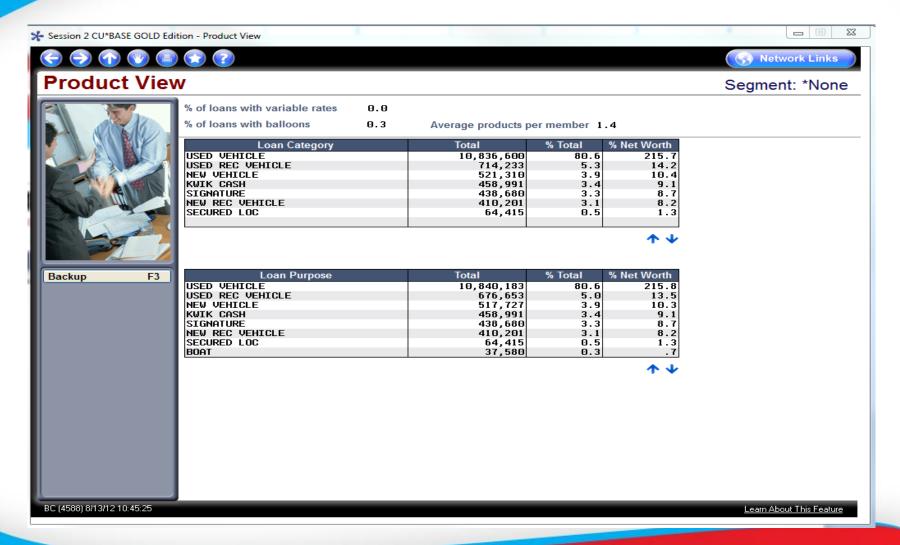
Summary Statistics (member view)



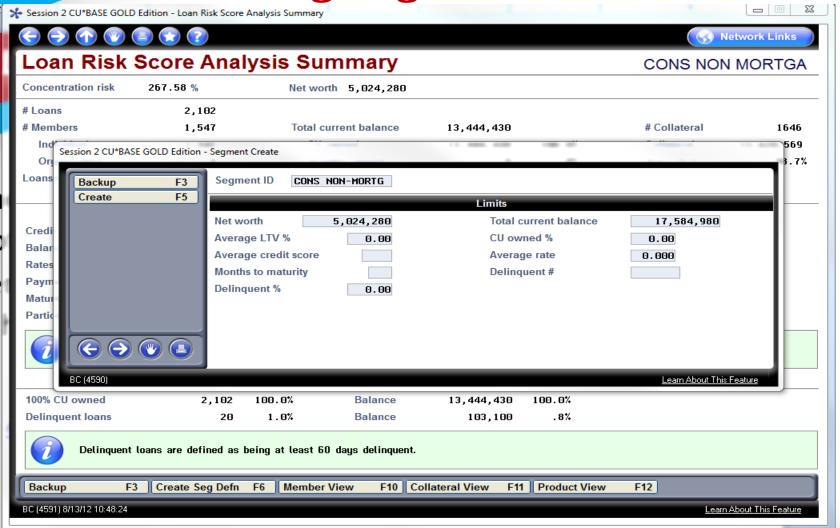
Summary Statistics (collateral view)



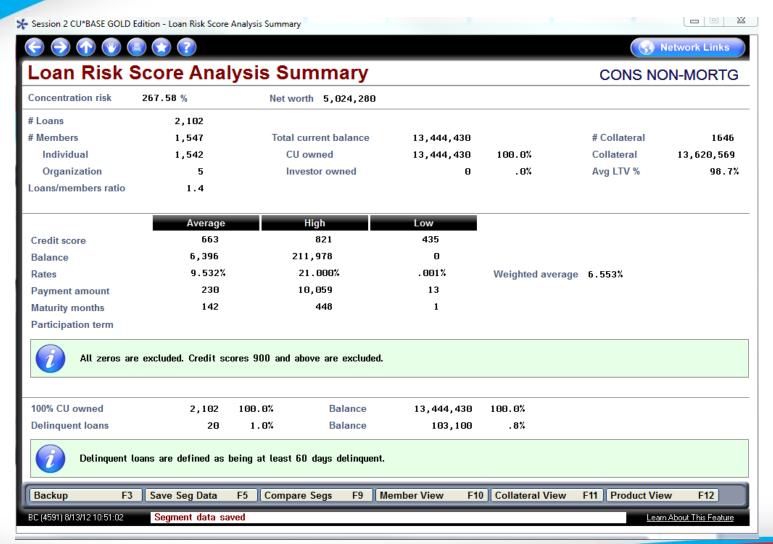
Summary Statistics (product view)



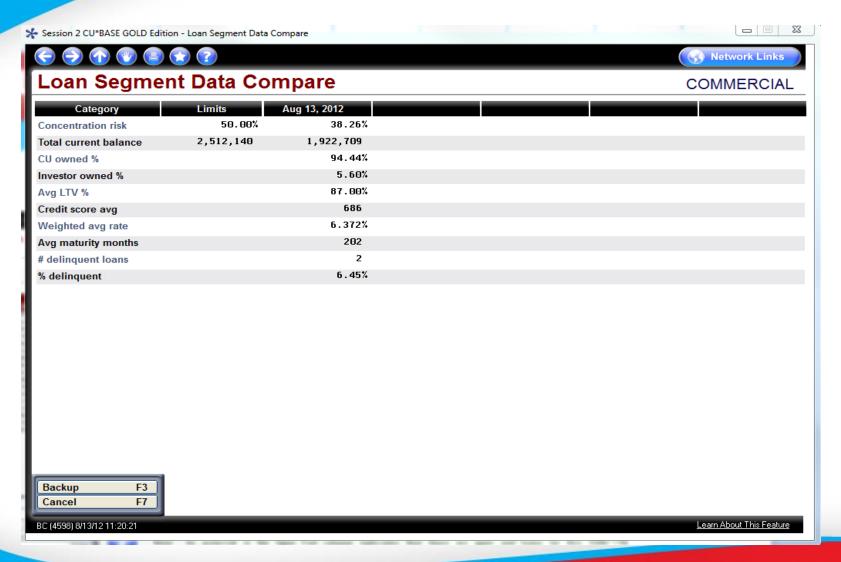
Saving Segments With Limits



Saving Segment Data



Trending Segment Data



Trending and Final Analysis

- Other Significant Data Elements to Trend by Segment
 - Three year loss history by year (not rolling)
 - Three year unemployment rate for the counties served
 - 30 day delinquency
 - Weighted average yield
 - Net yield after charge-offs
 - Net decline in housing values for each county or other geographic boundary
 - Percentage of loan dollars in each risk bucket

If Necessary a Deeper Dive A service of Audit Link

| | STATIC TESTING | | | | | | | |
|---------------------------------------|----------------|------------------|--------------|--------------|--|--|----------|------------------|
| STATIC TESTING | | | | | | | | |
| STATIC TESTING | | | | | | | | |
| | | | | | | | | |
| | NO SHOCK | EVENT RISK SHOCK | DOWNTURN | CRISIS | | | | |
| DIRECT AUTO LOANS | \$150,842.80 | \$215,979.46 | \$233,799.26 | \$279,200.77 | | | | |
| INDIRECT AUTO LOANS | \$44,970.67 | \$64,389.82 | \$69,702.43 | \$83,237.95 | | | | |
| PERSONAL AND PERSONAL LINES OF CREDIT | \$8,320.53 | \$11,913.49 | \$15,942.93 | \$20,033.63 | | | | |
| FIRST MORTGAGES | \$37,572.69 | \$53,797.26 | \$128,082.55 | \$179,949.19 | | | | |
| OTHER REAL ESTATE | \$3,830.53 | \$5,484.62 | \$9,310.91 | \$12,113.11 | | | | |
| BUSINESS REAL ESTATE | \$4,574.01 | \$6,549.15 | \$13,590.51 | \$18,029.98 | | | | |
| OTHER BUSINESS LENDING | \$870.78 | \$1,246.80 | \$2,587.30 | \$3,432.46 | | | | |
| TOTAL | \$250,982.00 | \$359,360.59 | \$473,015.89 | \$595,997.11 | | | | |
| NEW NET WORTH RATIO | 8.27% | 8.19% | 8.11% | 8.03% | | | | |
| | | | | | | | | |
| | | | | | | | | |
| DYNAMIC TESTING | | | | | | | | |
| | | | | | | | NO SHOCK | EVENT RISK SHOCK |
| DIRECT AUTO LOANS | \$218,655.43 | \$313,074.82 | \$338,905.66 | \$404,717.80 | | | | |
| INDIRECT AUTO LOANS | \$73,154.24 | \$104,743.58 | \$113,385.65 | \$135,404.02 | | | | |
| PERSONAL AND PERSONAL LINES OF CREDIT | \$13,604.79 | \$19,479.59 | \$26,068.08 | \$32,756.72 | | | | |
| FIRST MORTGAGES | \$41,490.84 | \$59,407.34 | \$141,439.26 | \$198,714.67 | | | | |
| OTHER REAL ESTATE | \$4,794.56 | \$6,864.94 | \$11,654.19 | \$15,161.61 | | | | |
| BUSINESS REAL ESTATE | \$5,687.78 | \$8,143.87 | \$16,899.79 | \$22,420.29 | | | | |
| OTHER BUSINESS LENDING | \$1,331.79 | \$1,906.88 | \$3,957.07 | \$5,249.68 | | | | |
| TOTAL | \$358,719.43 | \$513,621.01 | \$652,309.70 | \$814,424.80 | | | | |
| NEW NET WORTH RATIO | 8.19% | 8.08% | 7.99% | 7.87% | | | | |

Abnormal Activity Monitoring

- Review Regulatory Requirements
 - NCUA
 - FFIEC
- Review transaction types to monitor for
- Review and configure new CU*BASE tools
- Update on new examiner checklists
- Determine necessity and document additional controls

NCUA Expectations

"Federally insured credit unions will be expected to adapt appropriate strategies from the supplement to strengthen and enhance controls by January 2012. Beginning in 2012, at credit unions offering electronic services, NCUA examiners will evaluate these controls under the enhanced expectations outlined in the supplement"

Debbie Matz Chairman, NCUA

http://www.ffiec.gov/pdf/Auth-ITS-Final%206-22-11%20(FFIEC%20Formated).pdf

http://www.ncua.gov/Resources/Pages/LCU2011-09.aspx

FFIEC Supplement

What Transactions are Covered

Remains unchanged from the original 2005 guidance and is defined as:

Electronic transactions involving assess to customer information <u>or the</u> <u>movement of funds to other parties.</u> Not every on line transaction poses the same amount of risk. More controls should be added as the risk level increases.

- In itsme247
 - Transfers to other members accounts
 - Bill Pay
 - A2A

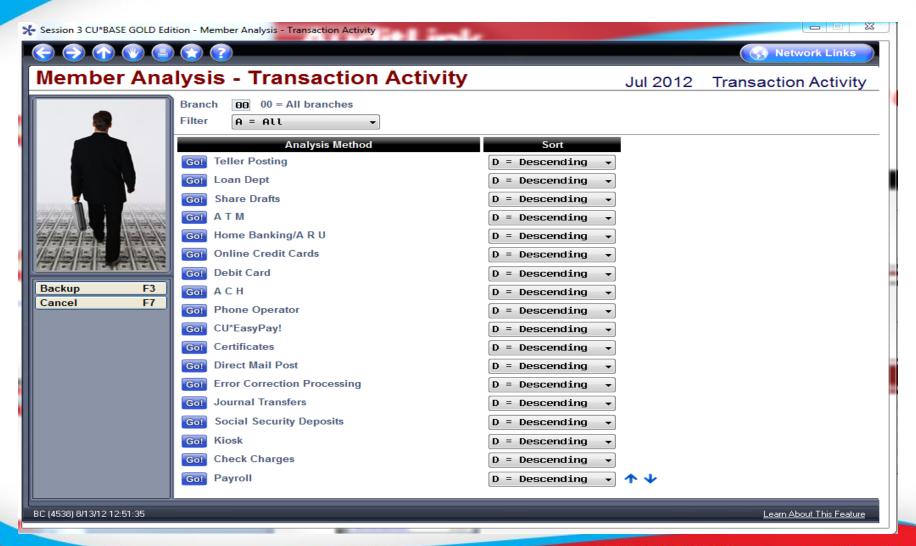
FFIEC Supplement

Retail vs. Business Commercial Banking

- Retail poses comparatively lower risk as the frequency and dollar amount or lower
 - Implement layered security for those accounts consistent with the risk
- Business transactions generally involve ACH file origination and frequent interbank wire transfers
 - Implement layered security for those accounts consistent with the risk
 - Offer multi factor authentication

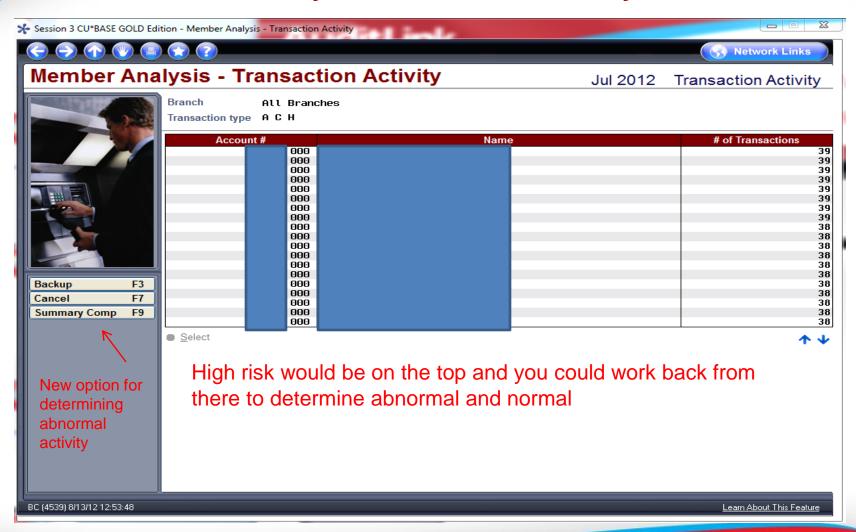
Determining What is Normal

Start by using the sampling tool MNAUDT #10



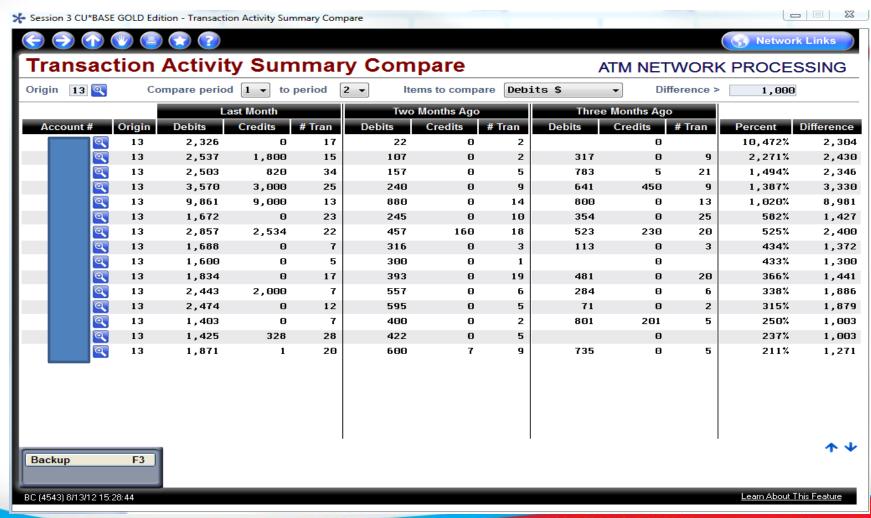
Determining What is Normal

Pick a few names in the middle of the scan



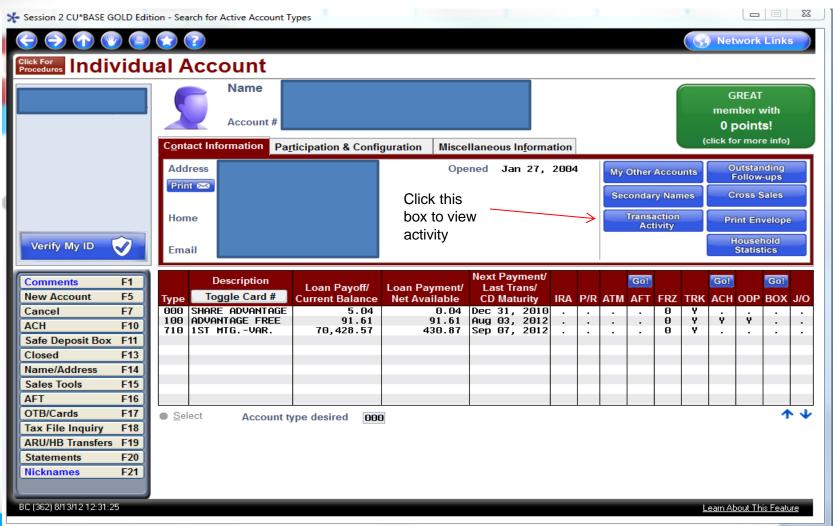
Summary Comparison

When using the sampling tools a new "compare" option has been added to let you deep dive into that specific origin



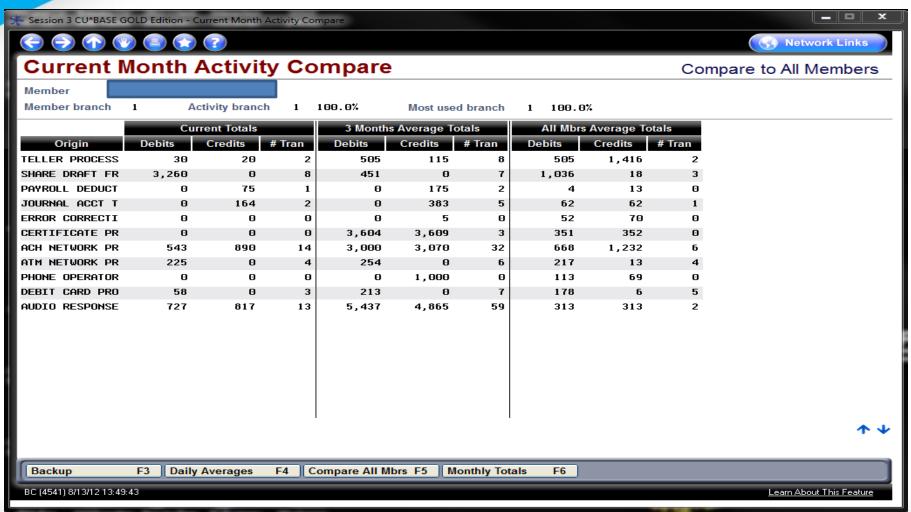
Determining What is Normal

Viewing transaction activity



Determining What is Normal

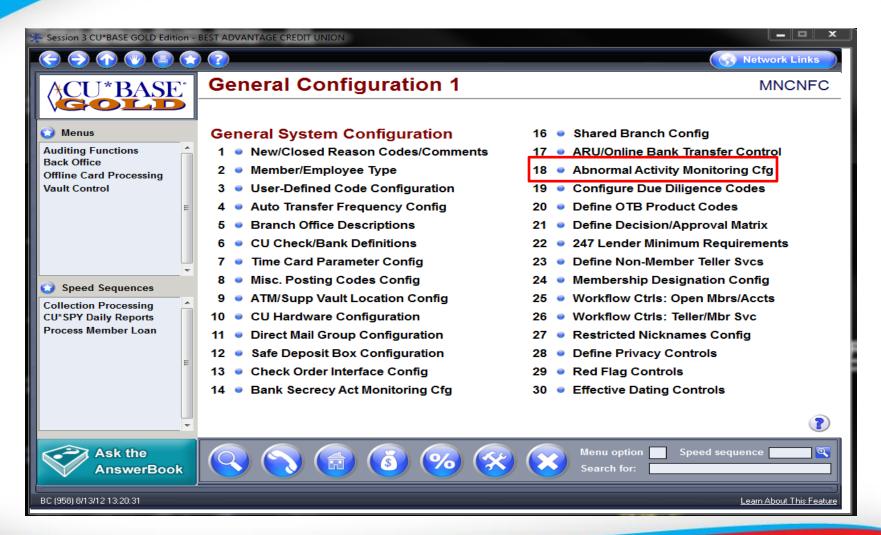
Comparing all members to get averages



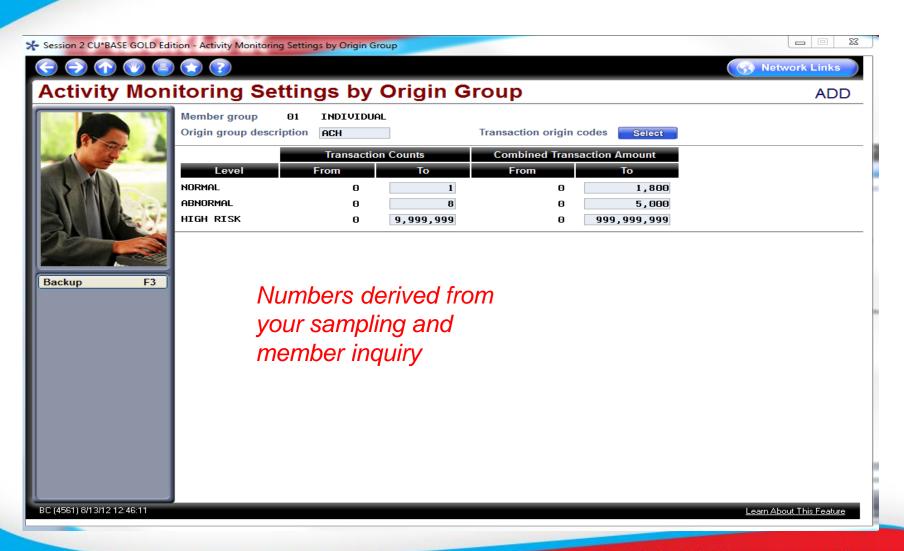
Configuring Groups

- Considerations for Grouping
 - Start by grouping the members by designation
 - Consider likely patterns to group designations
 - Rep Payee, Custodian, Trust (Fiduciary)
 - Organizational, Business, Corporate (Non-natural person)
 - Individual member
- Types of activity to monitor for
 - Not all origin codes need to be used
 - Consider those origins where the credit union has lost money by fraud
 - Consider those origins which are identified in the FFIEC Supplement

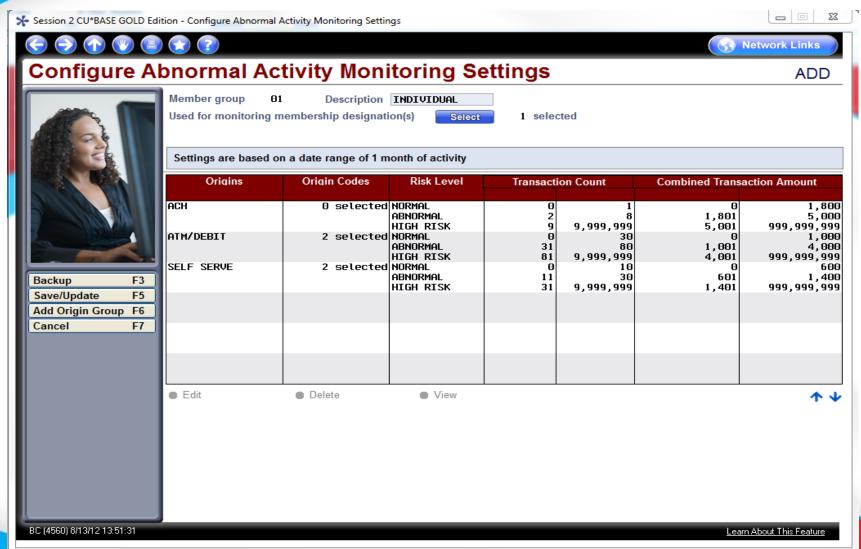
Configuring Groups MNCNFC #18



Configuring Groups MNCNFC #18

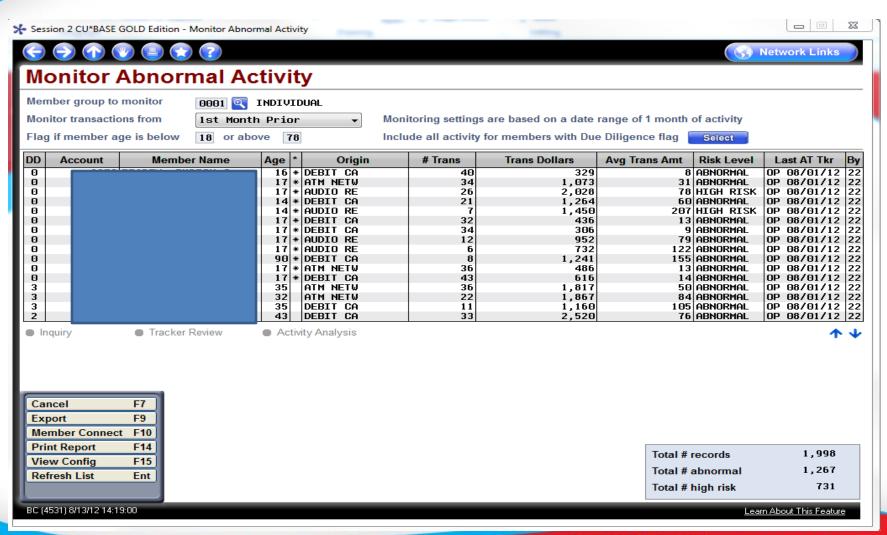


Configuring Origins



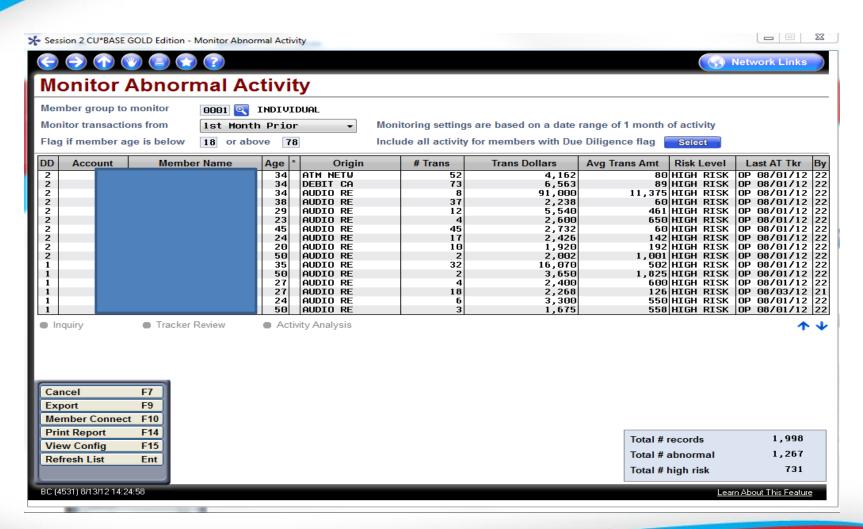
Running Report

MNAUDT #28 sorted by Age Indicator (Elderly abuse)



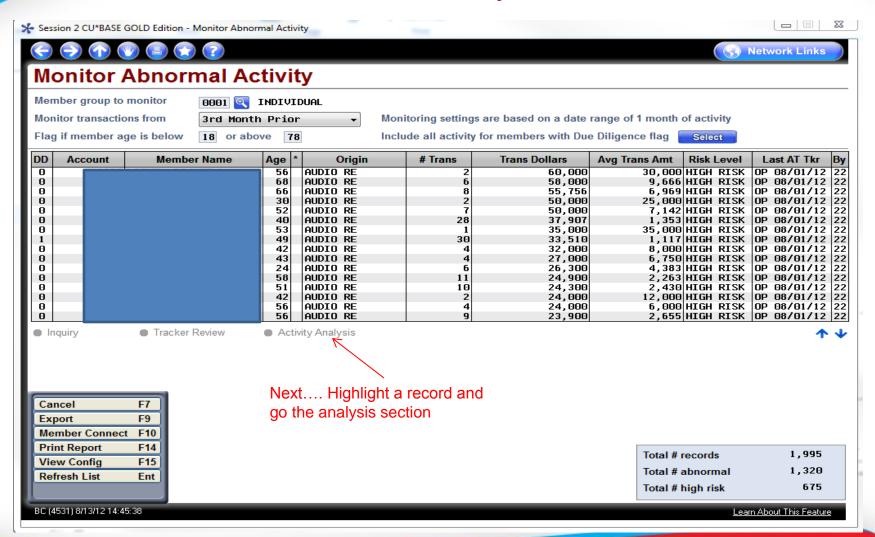
Running Report

MNAUDT #28 sorted by Risk Level

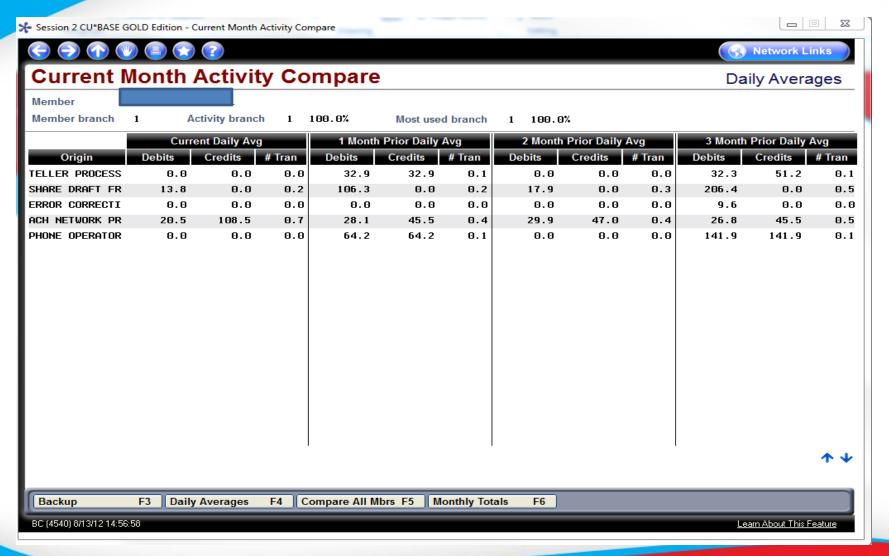


Running Report

MNAUDT #28 sorted by Transaction Dollars

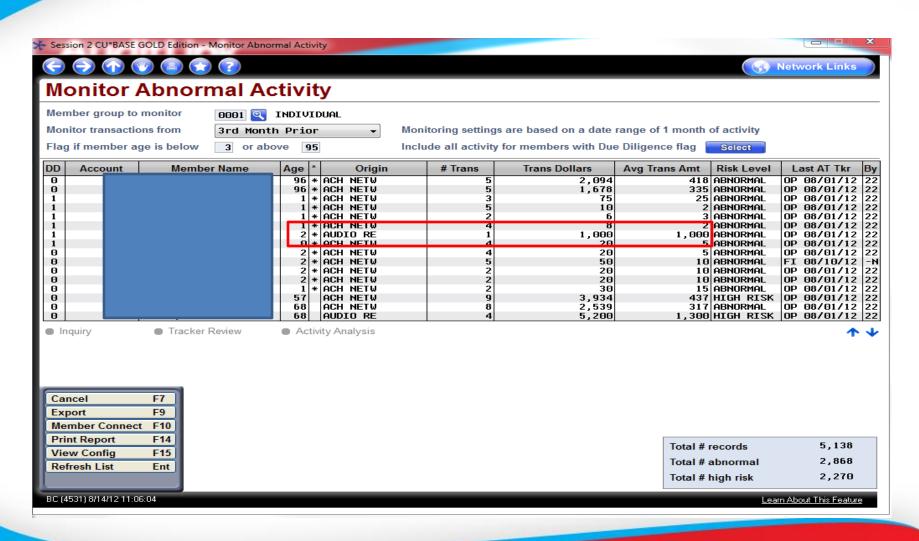


Deep Diving on Accounts



On a Side Note

This is the type of transactions that you will find



CMS Reasources

- Audit Link Advisor
 - http://advisor.cuanswers.com/

- We can tie all of this together for you
 - One time setup or permanent engagement
 - Training
 - Prices scaled to size of credit union/complexity

New Service Announcement

Brought to you by CU*Answers Management Services



Now Available for Abnormal Activity Monitoring! We do the launch...you serve your members!

Visit http://ms.cuanswers.com/ for more info