Best Practice Recommendations
For Beneficial Ownership Analysis (BOA) &
Customer Due Diligence Requirements (CDDR)

Revised May 30, 2018

Disclaimer of Liability

Disclaimer of liability: We're often asked for Best Practices in using or software. Unfortunately when it comes to detecting money laundering, fraud, identity theft, financial abuse of the elderly and other nefarious activity, there isn't one strategy that works for all financial institutions. However, based on our years of experience, we do offer the following recommendations as a starting point.

Very important note: Please understand that the procedures we recommend in this document may be different from what we recommended in previous documents. We update our Best Practice Guides (BPG) periodically, to reflect what is current in the banking and credit union industries. The bad guys are always doing new things—and these guides help you stay one step ahead!

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Beneficial Ownership Analysis (BOA)

What is Beneficial Ownership Analysis (BOA) and why do we care? Let us answer this with a quick story.

Juan Garcia is a smart businessman. His convenience store (which is called Roll On) sells the coldest beer, the best breakfast tacos and cheapest gas in town. His store is always busy; in 2017 Roll On's before-tax income was $500,000.

In an effort to make more money, Juan bought Tanker Magic (or TM), a gasoline distribution company. Unfortunately, TM proved to be less than magical for Juan. A traffic accident, a wrongful-termination lawsuit suit and a stolen truck left Juan with a loss of $300,000 for 2017.

In the old days, Juan could have combined Roll On and TM into a holding company, and used TM's loss to off-set most of Roll On's profit. But a tax-law change from 13 years ago nullified that strategy. Accordingly, Juan will have to pay $170K in taxes on Roll On's income, and hope TM is profitable in 2018.

Or will he …

Suppose Juan agrees to buy $375,000 of gas from TM, at a price of $7.75/gallon. The normal wholesale cost of gas is $2.25/gallon. The extra $5.50 that Juan is paying will result in TM having a loss of just $15,000 in 2017. The same transaction lowers Roll On's profit by $275,000. Juan's tax bill will now be $47,000 (a savings of $58,000) and TM's financial statement will look much better, making it easier for the company to attract new customers.

There's just one thing wrong with Juan's plan: it's illegal. This is a prime example of tax fraud; it's a felony and the federal sentencing guidelines call for imprisonment of 3-8 years. If Juan gets caught, he's in big trouble. But here's the deal: Juan is unlikely to get caught. The likelihood he gets audited by the IRS is less than 2%.

How common is a situation like Juan's? Very! The IRS estimates that less-than-arm's-length transactions cost the U.S. Treasury $20 billion a year.

Let me please tell you another quick story:

In 2004, a real estate developer wanted to build new luxury homes in Santa Fe, NM. Unfortunately for the builder, his request was denied. The reason: Santa Fe was in the midst of a long-term drought and the city's water supply could not support the development. The city council told the developer that to get his plans approved, the net impact on the city's water system had to be zero. (In other words: you find the water, we'll approve the development.) Needless to say, finding a new source of water in a small metropolitan area with an arid climate is not an easy task.

Or is it …

The builder proposed replacing every toilet in the city of Santa Fe with a high-efficiency model, at an estimated cost of $175 per toilet (and there were approximately 16,000 toilets). The builder also offered to fix leaks in the city's water system. The city accepted the developer's offer and the new homes were built. (Note: the value of the new development was over $40 million.)

So, why do we care about toilets in New Mexico? Well … it's the perfect analogy for the beneficial ownership rules.

- FinCEN tried to implement new Customer Due Diligence Rules (CDDR) in 2013, only to be told by the Government Accountability Office (GAO) that they couldn't do so, because the expected benefits of the new rules did not exceed the costs.

- In other words, if FinCEN wanted banks and credit unions to perform additional customer due diligence, FinCEN had to find some water.

- By incorporating the Beneficial Ownership Analysis (BOA) rules into the new CDDR, FinCEN convinced GAO that the Internal Revenue Service (IRS) would collect $3 billion in additional taxes. The extra tax revenue was the "water" that enabled FinCEN to proceed with the new CDDR. For example:

  - If the bank that serves Roll On files a SAR on the large payment to TM and identifies Juan Garcia as a beneficial owner, FinCEN will be on the lookout for any other suspicious transactions involving Juan Garcia.

  - If the bank that serves TM also files a SAR on the large deposit and identifies Juan Garcia as a beneficial owner, there's a good chance Juan gets busted and the IRS collects what is legally owed.

- And the cost to produce the extra $3 billion? An estimated $300 million annually (all borne by the banking and credit union industries).

Bottom line: FinCEN got CDDR, the IRS gets additional revenues and the cost of BSA & AML compliance increased notably.

And that, ladies and gentlemen, is why we have BOA—and why bankers have to care.

Customer Due Diligence Requirements (CDDR)

Now let's talk about CDDR:

I. One of the biggest obstacles in drafting the BOA rules was determining a strategy for gathering the information.

II. FinCEN determined that BOA information should be gathered when certain triggering events occur. The two most common triggering events are noted below.

  i. A new or existing commercial customer opens an account.

  ii. An existing commercial customer has a "significant unexplained change (SUC)" in their account activity.

    a) For example, the customer starts transacting large international ACH transactions (aka IATs).

    b) However, large increases in activity aren't the only thing that qualifies as an SUC. Significant decreases in transactions qualify too. A material decrease in cash-deposits is every bit as noteworthy as a large increase in IATs.

III. The introduction of CDDR obligates banks to actively search for SUCs.

(Note: it's the "actively search for" requirement that greatly increases the cost of CDDR compliance. FinCEN readily acknowledges that most banks will have to use an automated BSA system to meet this requirement—and those systems aren't cheap.)

IV. So, what happens when a bank finds an SUC?

  i. If bank management can ascertain a reasonable explanation for the SUC without contacting the customer, no further action is warranted.

  ii. If bank management must contact the customer to determine the reason for the SUC, then the bank must also ask the customer to review and update its beneficial ownership data.

V. If management has any concern about the explanation for the SUC, or, if the customer is unwilling to explain why the SUC occurred, then a SAR may be warranted.

OK folks, we now know two specific things about BOA.

A. When BOA information must be gathered.
B. When BOA information must be updated.

So, that leaves one final BOA topic: how do we know that a customer's activity is a significant unexplained change (that is, an SUC)?

The answer: we determine what we expect a customer to do and scrutinize any activity that's significantly different from the norm. What follows is the strategy of Wayne Barnett Software for determining transaction-norms for each commercial customer:

1. The first step is to identify what is meant by "anticipated account activity". WBS identifies 22 different factors for account activity:

    1) Cash-in amounts
    2) Cash-out amounts
    3) Cash-in number of items
    4) Cash-out number of items
    5) CTR count for cash-in transactions
    6) CTR count for cash-out transactions
    7) Structuring for cash-in transactions
    8) Structuring for cash-out transactions
    9) Incoming ACH debits
    10) Incoming ACH credit
    11) Outgoing ACH debits
    12) Outgoing ACH credit
    13) Incoming international ACH transaction (IAT) debits
    14) Incoming IAT credits
    15) Outgoing IAT debits
    16) Outgoing IAT credits
    17) Incoming wire transfers
    18) Outgoing wire transfers
    19) Incoming international wire transfers
    20) Outgoing international wire transfers
    21) Total debit transactions
    22) Total credit transactions

2. The second step is to create baselines for each of the 22 factors. We recommend a time period for the baselines that will allow you do an apples-to-apples comparison: please let us explain.

    - A bar on the Texas coast will have more business in June than in December. So, we'll compare the customer's activity for June of 2018 with the activity from June of 2017. (If we try to compare June of 2018 with December of 2017, the results will be skewed, due to the customer's normal business cycle. A lot more beer gets sold when it's hot, than when it's cold.)

3. However, a sound baselining strategy requires that you do more than compare June of this year with June of last year. You must also account for transaction-timing differences. Again, please let us explain.

   - ➢ A farm supply store in the Midwest will have less business in April of 2018 than in April of 2017, due to unseasonable inclement weather. So, when we look at the stores' transactions for May of 2018, we should consider what they did in April of 2017, to determine if there are SUCs.

   - ➢ There's also the considerations of invoices not being paid on time, and, payments not being deposited in the month they were received.

4. How do we include timing difference in the baselines? By including either one (1) or two (2) months on either side of the baseline target. Please indulge us one more explanation.

   - ➢ If we're creating baselines to compare with transaction activity from April of 2018, the recommend target month is April of 2017. You can expand the baseline to include the period March 2017 – May 2017 (one month on either side of the target month), or, February 2017 – June 2017 (two months on either side of the target month).

   - ➢ There's no implicit benefit of using one month on each side, versus two. In theory, two months on either side will give you fewer transaction anomalies. However, our experience has shown there to be no appreciable difference in three-month and five-month baseline periods.

5. So … now the big question: how do we define SUCs? We use the statistical science of peak-analysis. Here's an example:

   1) Over the baseline period, a customer had average monthly cash-in transactions of $200,000, with 22 cash deposits.

      - The monthly high and low amounts during the baseline period were $260,000 with 26 deposits, and, $105,000 with 14 deposits.

   2) In the most recently completed month, the customer had cash-in of $291,000 and 26 deposits.

3) CTM allows each bank to determine a normal growth/shrinkage percentage. We recommend using a 20% growth/shrinkage factor.

   - In the example above, the customer activity is not considered an SUC: neither the total cash-in nor the total number of cash-deposits (that is, $291,000 and 26 deposits) was more than 20% above the high amounts in the baseline ($260,000 and 26 deposits).

4) Now, let's assume the peak cash-in was $240,000 and 22 deposits; let's assume the low (or trough) cash-in amount was $170,000 and 16 deposits. For the current month to be recognized as an SUC (significant and unexplained change), one of four situations would have to occur:

   i. The total cash-in will have to exceed $288,000 (that is, $240,000 + 20%)
   ii. The total cash-in will have to be less than $141,667 (that is, $170,000 - 20%)
   iii. The total number of cash-in transactions will have to exceed 26 (that is, 22 + 20%)
   iv. The total number of cash-in transaction will have to be below 14 (that is, 16 - 20%)

5) So, the aforementioned cash deposits of $291,000 would be flagged as an SUC.

6) This analytical calculus is completed for each of the 22 factors identified above, for each commercial customer.

A few final notes on closing this introduction to the BOA Best Practices Guide.

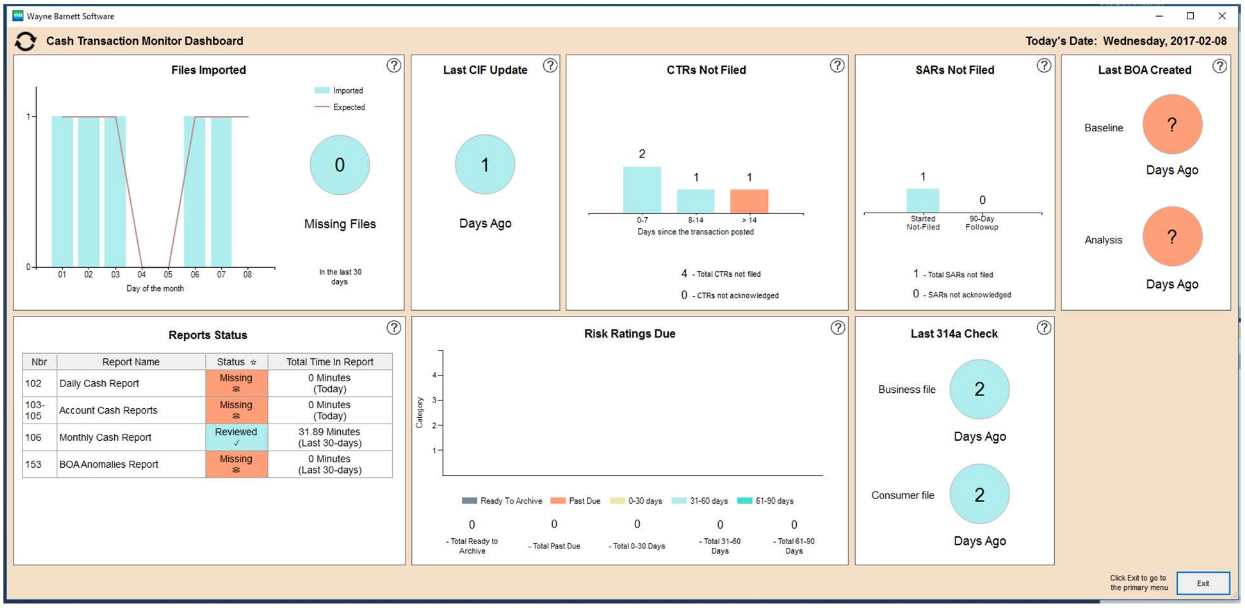
1. The bank can use whatever growth/shrinkage factors it prefers. We recommend 20%; however, we have customers that use factors as low as 15% and as high as 25%. (Needless to say, the lower the factors, the greater the number of SUC findings.)

2. The FBI has found that less than .5% of all commercial customers are involved in suspicious activity.

3. We believe that setting your CDDR factors so that they detect SUCs in .5% - 1% of your total number of commercial customers is a sound risk-based strategy for complying with FinCEN's CDDR and BOA rules.

4. **Very important note—the baseline amounts calculated for BOR are also used in performing enhanced due diligence (EDD) on commercial accounts. Specifically, a customer's transactions are considered possibly suspicious and the risk rating is increased when the transactions from the prior six months are significantly higher than the baseline average amounts.**

CTM Dashboard



Dashboard

Very important note: The CTM dashboard is referenced in several parts of the Best Practice Guide (BPG). To save space, we will only display one copy of the dashboard.

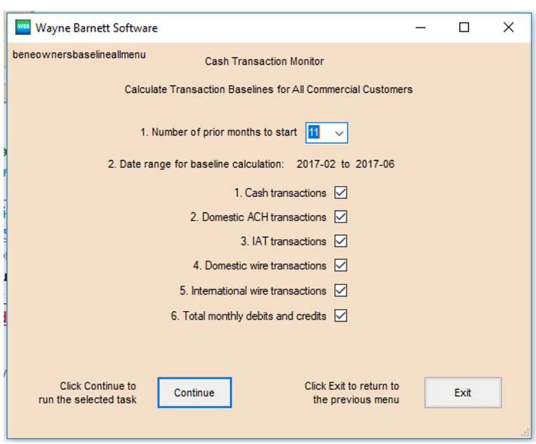
- **Dashboard panels 1 – 5 are the top row, going left to right.**
- **Dashboard panels 6 – 8 are the bottom row, going left to right.**

Monthly Best Practice 1: Create BOA Baselines

1. Dashboard panel 5 (upper level, last panel on the right) has two action-circles; the top circle runs the process for creating customer baselines. The bottom action-circle runs the process for creating CDDR statistics, for the past calendar month. Please see Monthly Best Practice 2: Create CDDR Stats for the Prior Month on page 10 for more information.

dashboardpanel5

2. Select the top circle to create the baselines for all commercial customers.



beneownersbaselineallmenu

3. In our example, the current date is May 17, 2018. So, we'll be reviewing transactions for the prior month (that is, April 2018). If we set the "Number of prior months to start" to 11, and if we are using a baseline period of three months, the baselines will include all transactions from March 1, 2017 through May 31, 2017. If we're using five months, the baseline will include all transactions from February 1, 2017 through June 30, 2017.

Very important note #1—the baseline compilation period can range from 4 to 12 months back. The period you use should be based on how seasonal your business customers are. If you don't

like the results of the baseline process (that is, you feel it doesn't accurately reflect your customers' operations), you can always create a new baseline.

Very important note #2—you can only create baselines for the systems you have. If you aren't using SAM, you can't create baselines for ACH, IAT or total debits/credits. Likewise, if you aren't using WTM, you can't create baselines for domestic or international wires.

Very important note #3—if you create two or more baselines on the same day, and for the same period, the last one created is the only one retained by the system. (For example: if I create two baselines on May 17, 2018, and both baselines are for the month of April 2018, the second baseline one will overlay the first one. However, if I create two baselines on May 17, 2018, and they are for different months, both baselines are retained by the system.)

Monthly Best Practice 2: Create CDDR Stats for the Prior Month

1. Dashboard panel 5 (upper level, last panel on the right) has two action-circles; the bottom one is used to create CDDR statistics, for the past calendar month. (Note: you can also create baselines for the second and third prior months.) Once the CDDR stats are created, you can compare them to the baseline figures and search for transaction anomalies. (Note: the top action-circle is used to create customer baselines. Please see Monthly Best Practice 1: Create BOA Baselines on page 8 for more information.)

dashboardpanel5

2. Select the bottom circle to create the CDDR Statistics for all commercial customers.

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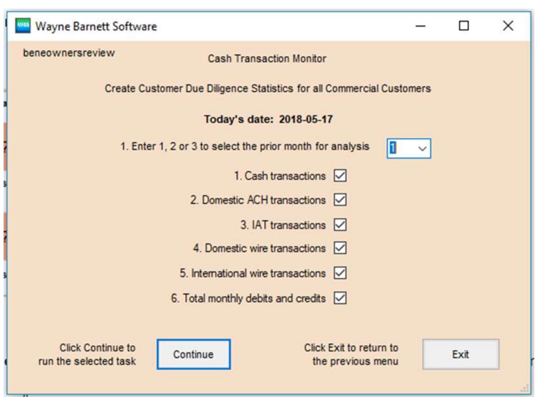


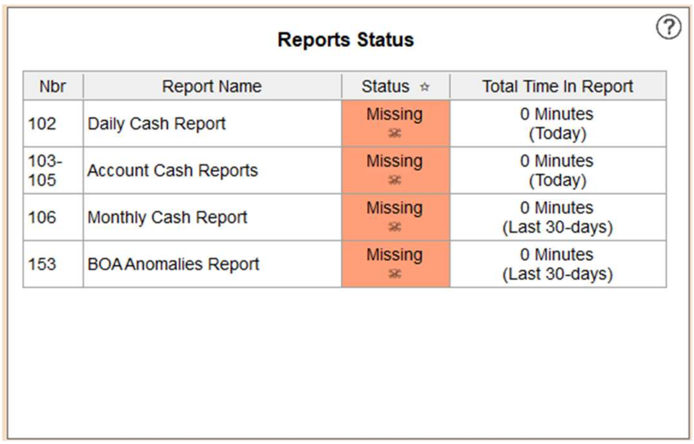
beneownersreview

Very important note #1—Current regulatory guidance directs that CDDR analysis should be done monthly. However, at least one agency is onboard with doing the analysis quarterly—if every month in the quarter is analyzed separately.

Monthly Best Practice 2—Create CDDR stats for the Prior Month

So, to comply with current regulatory guidance, you can only create transaction statistics for the prior month, the second prior month or the third prior month.

3. After you create the statistics, analyze the statistics for anomalies. To do this, please access the sixth dashboard panel (lower level, first panel on the left) and select the fourth report option (that is, report number 153—BOA Anomalies Report). Please see Monthly Best Practice 3: Review CDDR Stats for BOA Anomalies on page 12 for more guidance on searching for anomalies.



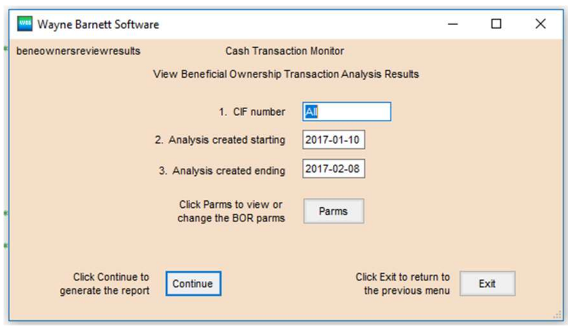
Reports Status

Nbr	Report Name	Status	Total Time In Report
102	Daily Cash Report	Missing	0 Minutes (Today)
103-105	Account Cash Reports	Missing	0 Minutes (Today)
106	Monthly Cash Report	Missing	0 Minutes (Last 30-days)
153	BOA Anomalies Report	Missing	0 Minutes (Last 30-days)

dashboardreportsstatus

Monthly Best Practice 3: Review CDDR Stats for BOA Anomalies

1. Dashboard panel 6 (lower level, first panel on the left) has four report click-throughs; the bottom one is used to compare the CDDR stats with the customer baselines, and report any transaction anomalies for the past calendar month.



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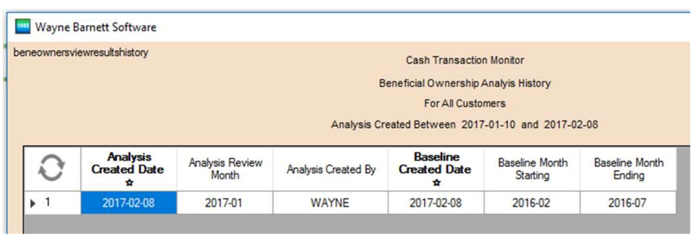
2. Click Continue; this will take you to a screen where you can select the CDDR stats you wish to review.



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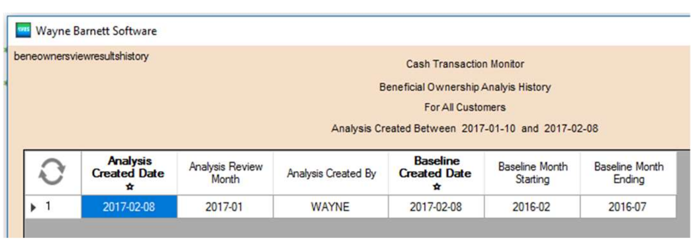
3. Click on the date in the first column (Analysis Created Date) to review the BOA anomalies results.



beneownersreviewresultshistoryscreen

4. All entries on this report should be resolved.

Monthly Best Practice 3—Review CDDR Stats for BOA Anomalies

	Relating Number ☆	CIF Number ☆	Customer Name	Transaction Type	Current Monthly Amount	Current Monthly Number	Amount % Change	Number % Change	Peek Amt % Change	Trough Amt % Change	**Baseline Monthly Amount ☆**	**Baseline Monthly Number ☆**	Baseline Peak Amount	Baseline Trough Amount
1		141-926-649	HINOJOSA WATCH REPAIR CO.	Total Monthly Debits	$173,954.29	61	233	39	56	588	$52,168.00	44	$111,600.85	$25,298.63
2		472-165-457	DONALDSON SCUBA DIVING LLP	Cash-In	$0.00	1	-100	-97	-100	-100	$30,955.00	39	$42,532.19	$22,338.75
3		473-993-473	ALLEN KITCHEN SUPPLIES LLP	Cash-In	$8,121.00	4	-74	-90	-77	-68	$31,116.00	39	$36,063.00	$25,363.50
4		752-646-132	NAPOLI INDIAN CUISINE LP	Total Monthly Debits	$302,027.00	61	67	135	30	325	$180,838.00	26	$233,173.04	$71,051.23
5		752-646-132	NAPOLI INDIAN CUISINE LP	Total Monthly Credits	$373,494.35	29	87	81	35	252	$199,546.00	16	$233,173.04	$71,051.23
6		756-019-458	ALLEN INDSTRY SUPPLIES LLP	ACH Incoming Credits	$903,013.44	28	206	33	82	1188	$294,713.00	21	$497,377.18	$70,129.50
7		756-019-458	ALLEN INDSTRY SUPPLIES LLP	Total Monthly Debits	$2,877,063.33	207	191	34	126	284	$990,317.00	155	$1,271,958.51	$749,206.21

beneownersreviewresultsscreen

i. If the bank has a <u>reasonable</u> explanation for the anomaly, it should make a note of the explanation in the Digital Customer Knowledge (DCK) system, and, mark the anomaly as resolved in the Easy-ID (EID) system.

   Note: if the bank can resolve the anomaly **without** contacting the customer, the bank is not obligated to update the customer's beneficial ownership information.

ii. If the bank does not have a reasonable explanation for the anomaly, it must contact the customer and inquire as to the cause of the significant and unexplained change (SUC) in transaction-activity.

   - The explanation given by the customer should be noted in the Digital Customer Knowledge (DCK) system.
   - Also, the anomaly should be marked as resolved in the Easy-ID (EID) system. Please see the Best Practices Guide for EID, for more information on this process.

   Note: if the bank must contact the customer to resolve the anomaly, the bank **is obligated to update** the customer's beneficial ownership information.

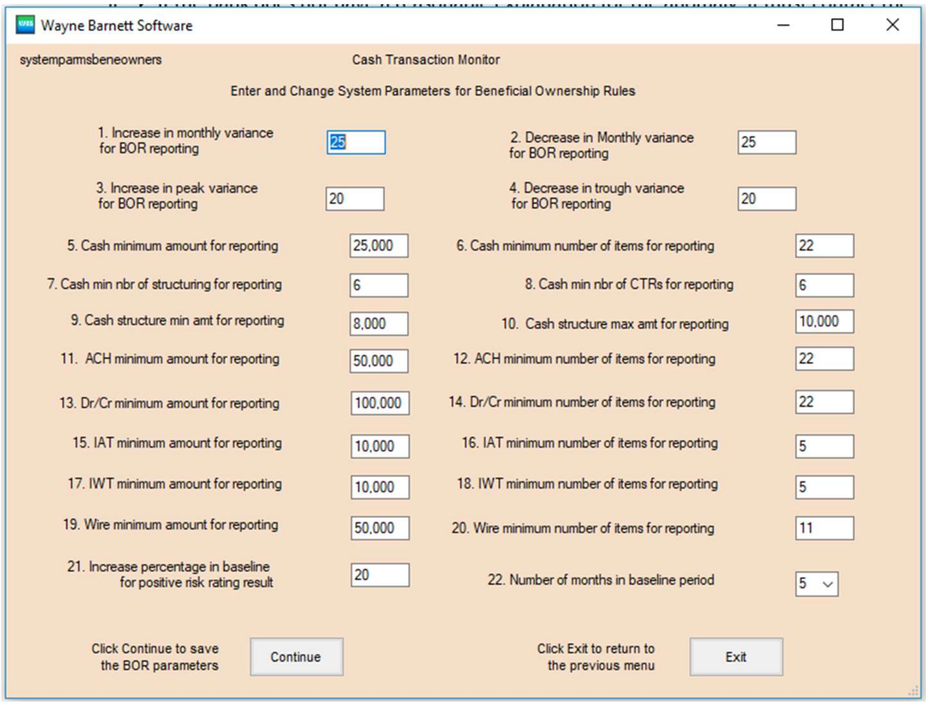
Very important note #1—how do we define "significant and unexplained change (SUC)"? That's a great question! For CDDR stats to be considered a significant unexplained change (SUC), one of two tests must pass:

i. The total activity for the month is higher than the highest month in the baseline, with the baseline amount increased for normal growth. (The default growth percentage is 20%.)

ii. The total activity for the month is lower than the lowest month in the baseline, with the baseline amount decreased for normal shrinkage. (The default shrinkage percentage is 20%)

iii. The default growth & shrinkage percentage are set on the BOA system parms screen (see the screenshot below). Please see pages 5 & 6 of this document, for more information on identifying SUCs.

Monthly Best Practice 3—Review CDDR Stats for BOA Anomalies



Very important note #2—When you perform enhanced due diligence (EDD) on commercial customers, the risk-rating calculus will now use the greater of the baseline amounts or the system de minimis risk-based amounts. For example:

- **A customer's baseline shows normal monthly ACH incoming credits of $120,000.**
- **A positive risk-rating result will be produced for ACH incoming credits when the total for a month exceeds $144,000. (That is, $120,000 + 20%; the add-on percentage can be altered by the bank. Please see Chapter 7: Risk Management in the CTM User Guide for more information.)**
- **If the baseline amount for monthly ACH incoming credits had been $20,000, a positive risk-rating result will be produced when the ACH incoming credits exceeded $50,000. (That is, for EDD purposes, $50,000 is the amount of monthly ACH incoming credits that creates a cause for concern. The de minimis risk-based amounts can be altered by the bank. Please see Chapter 7: Risk Management in the CTM User Guide for more information.)**
- **Please feel free to call Wayne at 469-464-1902, if you want to change the CDDR growth/shrinkage percentages, or the de minimis risk-based amounts.**

Thank you for using Wayne Barnett Software

Thank you for being our customer, we appreciate you. If you have any questions about this guide, or, ideas for improvements, please let us know. Your e-mails and phone calls are always appreciated.

wbarnett@barnettsoftware.com

469-464-1902