Evaluating Your Offense to Defense Ratio (ODR)

By Neil H. Timm

Duplicate Match-point Bridge is all about bidding in competition and how many tricks each side can take. However, you do not want to outbid the opponents if the penalty you earn is more than the value of the contract they would have earned.

If you can make eight tricks in hearts and they can make eight tricks in spades, and they bid 2♠, then you should bid 3♥ if you know with some certainty that you can expect to go down by at most ONE trick since to score of -50 or -100 is better than the 110 that their 2♠ contract would produce, bid to the 3-level; since any positive difference (even 10 points) to the majority of the field is decisive in terms of match points. Even two tricks down for a score of -100 is fine if not vulnerable; but if vulnerable a score of -200 is clearly bad so you may not want to outbid them when vulnerable if you were to get doubled.

The challenge is to **accurately** evaluate how many tricks you and the opponents can take. Remember that the aim of competitive bidding in regular match-point pairs is not to bid what you can make. Rather you are striving for the best possible score on the board, the **par score**, even if that means bidding to go down - provided it scores better than allowing the opponents to make their contract. Therein lies the rub since most of the methods used do evaluate the number of tricks do not guarantee success because "success" depends upon high-card strength, shape, the distribution of HCP values, and suit quality. Together they define your Offense/ Defense Ratio or (ODR); a concept most current methods do not address. The higher your ODR, the more you should compete to win the contract. With a low ODR, it is best to defend!

In this bridge "Bit" I will try to define ODR factors and how you may use them to bid or defend; however, before I address ODR lets review some of the techniques used to evaluate trick taking success!

Hand Evaluation and points

If your partner makes an opening bid then you have a reasonable estimate of your total points if you have a fit by adding your dummy points to partners after adjusting for shortages, suit length and suit quality. However, if both sides are bidding it is very likely a distributional contract suggesting that more tricks may be won with fewer points; but by how much less? You do not know; hence points by themselves do not allow you to evaluate success in a competitive auction. Point evaluation is most effective in notrump contracts.

Losing Trick Count (LTC)

A little more useful, when partner opens and you have a fit, is to count your losers and adding them to those indicated by your partner's opening bid. This gives a better indication of the number of tricks your side might win, since it captures some of the power of distributional hands. Recall that the formula for total tricks is: **Maximum possible losers in both hands (24) minus # of losers = Tricks Expected**. For example for a major suit contact, if each hand has 7 losers for a total of 14, one can expect 10 tricks; on average. But some of the assumptions behind loser count, such as considering every card after the fourth to be a winner, become less assured when the opponent's hands are also very distributional. In addition loser trick count doesn't help estimate the trick potential of the opponents, nor does it take into account the information provided by the opponents' bidding. And, LTC does not work with notrump contracts.

Adjusted Losing Trick Count (LTC)

If the number of Aces (under valued honor) is larger than the number of Queen (over valued honor) subtract ½ loser for the difference. If the number of Queens is larger than the number of aces add ½ loser for the difference.

The following hands highlight the differences between the LTC and ALTC methods:
♠ Axxx ♥Axx ♦Axx ♣ Axx - 8 LTC losers, but only 8-2= 6 ALTC losers
♠ Kxxx ♥Kxx ♦Kxx ♣ Kxx - 8 LTC losers, and also 8 ALTC losers
♠ Qxxx ♥Qxx ♦Qxx ♣ Qxx - 8 LTC losers, but 8+2 =10 ALTC losers

For simplicity, cards below the rank of Queen are represented with an "x".

Johannes Koelman introduced a New Losing-Trick Count (NLTC) in The Bridge World, May 2003. Designed to be more precise than LTC, the NLTC method of hand evaluation utilizes the concept of "half-losers", and it distinguishes between 'missing-Ace losers', 'missing-King losers' and 'missing-Queen losers.' NLTC intrinsically assigns greater value to Aces than it assigns to Kings, and it assigns greater value to Kings than it assigns to Queens. Some users of LTC make adjustments to the loser count to compensate for the imbalance of Aces and Queens held. Koelman argues that adjusting a hand's value for the imbalance between Aces and Queens *held* isn't the same as correcting for the imbalance between Aces and Queens *missing*. Because of singletons and doubletons [and because losing-trick counts assign losers for the first three rounds of a suit], the number of losers from missing Aces tends to be greater than the number of losers from missing Queens.

The Law of Total Tricks

Counting total tricks is a better general guide for competitive auctions. Total tricks refer to total number of tricks you can expect to make with a trump fit. It is equal to the sum of the trumps in both hands. Thus, with 9 trumps, one should bid to the 3-level; and with 10 to the 4-level. Simple! Yes, too simple. It does not take into account honor combinations, distribution, or trump quality. For more detail, see the Law of Total Tricks “Bridge Bit” on the Ocala Web site. As a simple estimate, bid to the level where the ∑ trumps -11= ∑bids.

Lawrence and Wirgen Working Points

Lawrence and Wirgen define Working Points (WP) as HCP that take tricks. Returning to hand evaluation, one can define approximate WP as the number of HCP after adjusting for dubious honor doubletons and honor singletons. Where dubious doubletons are defined as: AJ, KQ, KJ, QJ, Qx, Jx and singletons are K, Q, J. Subtract one point for each from you HCP total. Assuming the WP in both hands is between 19-21, the number of tricks one can expect is obtained by subtracting from 13 the Short Suit Total (SST). Thus Total Tricks Expected = 13-SST. On average your SST is about 4 (doubletons in both hands) so with a fit, one can expect 9 tricks, if balanced. With a SST of 3 you can expect 10 tricks. Or as WP increase, in steps of 3 points, one trick is gained. Hence with WP= 22-24 and SST=4, one can expect 10 tricks. Your SST determines the value of your trumps. This method takes into account High-card strength and shape.

None of the methods discussed take into account all the factors: high-card strength, shape, the distribution of values, and suit quality. Together they are used to evaluate your Offence/ Defense Ratio (ODR).

Your Offense/Defense Ratio

Your Offense/Defense Ratio (or ODR) is a useful tool in the decision to win the contract or to defend. It is based on the assumption that hands with approximate equal starting points, identical HCP, equal LTC, and equal trumps and distribution can have very different offensive and defensive values.

Consider the following hands opening hands:

(1) ♠KQJ109 ♥743 ♦A53 ♣Q5
(2) ♠A8732 ♥Q5 ♦A43 ♣Q5

Hand (1) has 14 starting points and hand (2) has 12, both hands have 12 HCP with 8 losers and with the same shape yet should be bid differently.

The first hand has five tricks playing in spades, whereas defensively it might only have 2 tricks. Because of its offensive strength it would be important to bid early and to try to obtain the contract.

The second hand, in contrast, has only 3 or 4 tricks playing in spades and probably 3 in defense. Consequently it is more defensive. Note the ♥Q, and any intermediate honor in a short suit, is more likely to win a trick in defense than as declarer. On this holding you would be happier to defend if partner does not support spades.

A few general ODR simple guidelines:

- Qs and Js in your long suits are offensive, but in short suits are defensive
- Honor sequences particularly in your long suits are offensive
- Concentrated HCP are offensive while distributed values are defensive

The RATIO of "Offense winners" to "Defensive winners" is your ODR! However in competitive auctions it is very difficult to evaluate with a simple formula.

ODR in more detail

(1) High Card Points (HCP)

In evaluating ODR, HCP is NOT the most important. Why you ask, because it is equally important to Offense and Defense. This is because HCP, in the abstract, is just as likely to increase your offense potential as your defense potential. However, this may not be the case if one obtains a fit. Now a hand may be offensively strong with NO HCP; yet with no HCP you may have no defensive strength. In general, the greater you high-card strength, the less significant will be your ODR. Why you ask? Lets look at an example.

You hold the hand ♠**9876** ♥**7** ♦**653** ♣**9754**, and your partner opens 1♠. Clearly with a singleton and 4-card support, the hand is Offensive with little Defensive value. Now lets add 10 HCP to the hand: ♠**A876** ♥**7** ♦**A53** ♣**Q754** and assume that our offense and defense increased equally. However our ODR has increased by 10 fold.

To see this, consider two persons that are aged 10 and 5, the ratio of their ages is 2:1; however, adding 40 to each of the ages; we have 50 and 45, respectively. The gap remains at 5, but the ratio is insignificant; thus, the greater the high-card strength, the less significant the ODR.

(2) Shape

The number of trumps beyond 8 contributes to your offensive value; this is not the case if the hand is balanced. Assuming the number of trumps remains constant, the more unbalanced your hand, the higher the ODR and conversely. Clearly hand (a) ♠**9876** ♥**7** ♦**653** ♣**9754** is more defensive that hand **(b)** ♠**9876** ♥**753** ♦**65** ♣**9754**. Hand (b) is clearly offensive. Balanced hands have less defensive value.

(3) Distribution of HCP Values

The most important variable in the determination of ODR is the distribution of your HCP. Values in your own agreed upon suit are offensive while values in the opponents suit are defensive. Furthermore, the greater the concentration of values in the un-bid suit, the higher you can expect your ODR.

Consider the following hands opening hands in a spade contract.

(1) ♠**AJ87** ♥**KQ96** ♦**653** ♣**85**
(2) ♠**10753** ♥**AQ** ♦**J54** ♣**K65**

Both hands have 10 HCP, hand (a) is offensive while (b) is more defensive.

(4) Suit Quality

When addressing suit quality, you have to consider the kinds of values in (a) your trump suit, (b) a long 5-card suit, (c) the opponents' suit, and (d) your short 2-card suits.

(a) Honors in your trump suit AKQJ are offensive.

(b) Top honors AKQ in a side 5-card suit are offensive.

(c) In you opponents' suit, the situation is reversed. KQJ are offensive and Ace is neutral.

(d) Short suit, A's and K's are offensive or defensive, while Q's and J's are more defensive (if partner did not support your short suit).

In summary, a suit contract will be approximately equal to the number of trumps in both hands provided your ODR is not brought down by poor shape, suit quality, distribution of HCP, and defensive honor-card holdings.

The ODR and Total Tricks/Trumps guidelines still do not take full advantage of all the information provided by the bidding. You need to build your own picture of the your hand. Start with re-evaluating the value of your honor holdings in the opponent's suits. A KJx holding in a suit bid by the opponents, for example, has little value over the opponent bidding the suit (you can count on 1-2 tricks); you may get none if the opponent is over you.

Slightly tougher is to use the bidding to judge the length of side suit fits for both your partnership and your opponents. If each side has a double fit, that is a fit in a side-suit as well as trumps, then this suggests even more total tricks and even more competitive bidding. On the other hand, if you are short in your partner's second suit or have length in an opponent's second suit, it suggests the opposite - restrained bidding. To see how all this may work, we look at an example.

Example

You hold ♠52 ♥K1097 ♦32 ♣AQ1065

And your partner opens with the bid of 1♥, which is followed by a 1♠ overcall. What is your next bid?

You have 9HCP and 2 shortness points and one length point or 12 dummy/support points with at least a 9-card trump fit. Game is clearly possible, but not certain. And what happens if the opponents confirm a spade fit?

You have several options, playing the 2/1 Game Force System.

(1) Not playing "Bergen", you can bid 3♥ immediately to show your fit and a limit raise (called a high-card raise). The advantage of the bid is that it might make it harder for the opponents to continue to interfere (you have taken away the 2♠ bid of the opponents); however, it also makes it more difficult for you to show values should the opponents bid 3♠ or more. Alternatively, you may make the 2/1 bid of 3♣, which is forcing to game and helps to describe your hand. Of course it also provides the opponents with information. But, if the opponents do bid spades at the 3-level you may never get a chance to show your club suit. And, how does your partner make an informed decision after a three-spade bid, to bid on, pass, or double? Clearly, bidding 3♥ is better than making a 2/1 bid. The worst destructive bid is to bid 4♥ which try's to prevent the opponents from finding their level, a vulnerable game.

(2) Playing "Reverse Bergen", one may bid 3♣* (alert) to show a limit raise in spades with 4 spades and 10-12 dummy points. If the opponents next bid 3♠ or more, now what do you bid? Do you bid 4♥, pass or double? Again, things are not so clear. Note with Bergen the bid of 3♥* would be a pre-emptive raise. You cannot cue bid 2♠ because it shows a limit raise with only 3-card support.

(3) Some may even bid Jacoby 2NT; however, you should have 13 not 12 dummy/support points.

The most important principle in competitive bidding is to **show partner you have a fit**. Since if you have one, it is very likely that the opponents also have one. The bidding goes as follows (E-W Vulnerable and N-S Not Vulnerable).

North	**East**	**South**	**West**
		1♥	**1♠**
3♣*	**3♠**	**?**	

Now what?

Do you Pass, double or bid on?

Using the Law, the sum of the trumps is between 17-18, worst cases 18 - 11=7 the sum of the bids, since 3♠+4♥=7, the Law says bid 4♥!

Using the LTC method, 24 -14 (7 losers in each hand) = 10, bid 4♥!

Using the ALTC method, 24 -14.5 (7+7.5 losers = 9.5 Do not bid 4♥!

Using Lawrence and Wirgen with 19-21 WP and SST=4; 13-SST=9 total tricks. Do not bid 4♥!

You have only 9 trumps NOT 10, so the 3-level is safe.

What about your ODR? You have a very good side suit clubs that contains two honors, perhaps 1-2 tricks and probably 1 heart trick; and partner promises at least 2 tricks as opener. Even though you have good offensive values, you judge that with a low ODR it is better to defend than to bid a game in hearts. So you double 3♠ and do not bid 4♥. The hand layout for this example follows.

North
♠ 52
♥ K1097
♦ 32
♣ AQ1065

West
♠ AKJ108
♥ 52
♦ 78
♣ KJ74

East
♠ Q976
♥ 85
♦ AQ1023
♣ 32

South
♠ 43
♥ AQJ64
♦ KJ94
♣ 98

Observe that while 4 hearts does make for a score of 420; 3♠ goes down at least 2 tricks for a score of 500. Thus, taking into account ODR, it is better to defend than to bid your heart game. If you do indeed bid 4 hearts, the opponents without your tools may bid 4♠ which I hope you would surely double as well.

ODR RULE: To determine whether to bid or defend in suit contracts, the ALTC method on average provides the most reliable method. Ely Culbertson* developed the ALTC hand evaluation method. It attempts to resolve whether to bid on (offense) or to defend (defensive) after knowing one has a trump fit.

***Elie Almon Culbertson**, known as Ely Culbertson (July 22, 1891 – December 27, 1955), was an American contract bridge entrepreneur and personality dominant during the 1930s. He was born with dual citizenship in Russia to an American father.

ODR is discussed in LESSON 21 Page 122 in the book by Eldad Ginossar (2019) "Power Up Your Bridge Game".

Response by Patrick Darricades who wrote the book "Optimal Hand Evaluation" (2019), published by Master Point Press.

Hello Neil,

Thank you very much for the praise! I am delighted that you appreciated the book and hope that the use of the Optimal point count will bring you much success "at the table".

You raise an interesting question about ODR - and you may well find that the Optimal point count does, in fact, provide the built-in formula that you are looking for to "quantify" the ODR.

Here is why: the four elements that you correctly list as constituting the ODR - HCP, hand shape, location of Honor cards, and suit quality - can be equated, in the vast majority of cases, to :

More **total** points = more **offensive** power, whether the points come from HCP or suit quality or distributional values (short suits) or meshing fits. And that is precisely what the Optimal point count measures with optimal accuracy. Let's take as examples the hands shown in your PDF document.

Adjusted Losing Trick Count (page 2)

S A x x x H A x x D A x x C A x x = 6 ALTC losers
Optimal PC = 16 pts (no K, no Q)

S K x x x H K x x D K x x C K x x = 8 ALTC losers
Optimal PC = 12 pts (+ 2 pts for 4 Kings but - 2 pts for no Queen and 4 3 3 3)

Offense/Defense Ratio (page 3)

S K Q J 10 9 H x x x D A x x C Q x = 14 1/2
Optimal pts (15 1/2 if counting 1 point for the 9 of spades which accompanies the Jack and 10)

S A x x x x H Q x x D A x x C Q x = 11 1/2
Optimal pts (no King)

Responding hand on partner's 1 heart opening (page 5)

S x x H K 10 x x D x x C A Q 10 x x Note, first, that this is ***not*** a limit raise hand as it has **17** HLDF pts, not 12 !

The bidding: 1 heart 1 spade 2 NT (Jacoby raise) or 3 clubs 3 spades
?
The bid must be **4 hearts**, **not** double. There are plenty of points for 4 hearts while you do not know whether the opponents will be **down two** at 3 spades.

One is almost sure, the other is not.

Let’s be realistic here: the layout shown on page 8 is not likely to be the one found in most cases…

In conclusion, **because** the Optimal point count appropriately quantifies HCP pts, hand shape, location of honour cards and suit quality as well as “meshing" Q J x opposite partner’s long suit while deducting points for isolated Qs and Js i.e. Q x x J x x it does, *in the vast majority of cases*, appropriately quantifies the 4 elements you listed as ODR key factors and may well constitute the “formula” you are looking for.

Again, thanks, Neil, for your feedback on my book and best regards,

Patrick

OVERVIEW of “Optimal Hand Evaluation Method”

Playing any bridge system, the most challenging aspect of the system is hand evaluation to help pairs reach the “best” correct/optimal contract.

Do you count HCP (H) or H+L (HL) or H+D (HD) or HLD where D=distribution
Consider the following hand: ♠ AKQJxxx ♥ xxx ♦ xx ♣ x

This hand has 10 H points, 13 HL/HD points, and 15 HLD points.

The book by Patrick Darrecades “Optimal Hand Evaluation” (2019), an honors book from Master Point Press, presents a new flawless method for the evaluation of bridge hands.

Returning to the above example, Darrecades’s optimal count method gives the hand 18 ½ total points! How would you count the hand?
Let’s look at another example were we have two hands.

North	South
♠ A76	♠23
♥ 78	♥A56
♦K95	♦AQJ43
♣AQ987	♣K57

4321 System	14HL +15HL =29HL pts or 10 ½ tricks
Bergen Adjust 3 Method	14 HL+16HL = 30 pts or 11 tricks
ZAR points	29 Z pts + 30 Z points = 29 ½ HL points (59/2=10 ½ tricks)
Darrecades Optimal Count	15HL+ 17HL +4 Fit pts = 36HLF points = 13 tricks

None of the “standard” methods show a small slam – let alone a grand slam!
What is his method?

An overview of the system follows.

<u>HONOR POINTS</u>

Ace: 4 ½ pts	K: 3pts	Qxx: 2 pts	Q sig: 1½ pts
		Jxx: 1pt	J sig: ½ pts

NO Aces = -1 pt (opening hand only)
No Q = -1 pt   No K= -1 pt   3Ks = +1 pt   4Ks = +2pts
Singleton honor = -1pt   2 Honor doubletons = -1 pt (e.g. AQ, AK, KQ, QJ)
Q/J doubleton = -1 pt (e.g. Qx=1 and Jx=0)
3+ Honors in 6-card suit = +2 pts in 5-card suit= +1 pt

<u>LENGTH POINTS</u>
5-card suit with K/Q/J = +1pt   6-card suit = +2 pts   7-card suit = +3   etc. add 1more for 8 …

<u>DISTRIBUTION POINTS</u>
VOID = 4pts   singleton= 2 points **ONE** doubleton= 0 pts **TWO** doubletons = 1 pt
4333 = -1 pt and singleton in NT contract = -1pt

<u>SUIT FIT POINTS</u>
8/9/10 card fit= +1/2/3 pts (all suits) and ALSO ADD +1 more for K/Q/J/10

<u>"SHORTNESS" FIT POINTS</u>

Number of trumps	4	3	2
Void	4pts	3pts	2pts
Singleton	3pts	2pts	1pts
Doubleton	2pts	1pts	0pts

<u>MISFIT POINTS AND WASTED HONOR ADJUSTMENTS</u>
Opposite a long suit in Partners Hand -3/-2/-1 for void singleton/doubleton
Honor opposite a S/V -2/-3 Non Honor +2/+3 Ace opposite singleton= +1