Pre-Flop Play

When playing for stacks in PLO, you want to construct hands that either dominate or have a distinct advantage over your opponent’s range. The “big play strategy” as described by Hwang (20xx) involves recognizing what constitutes an edge (or a pitfall) and using that knowledge to capitalize on this advantage.[[1]](#footnote-1)

Hwang begins the book by describing the scenarios that typically lead to “big implied-odds” situations, or cases where you have a distinct advantage over other holdings contesting the pot. These cases include:

* **The nut straight freeroll**
  + A flopped, bare nut straight should be considered a tenuous holding because you could be up against a player with a identical straight but with other outs (e.g., flush redraws, full house redraws, or dominating straight redraws).
  + The goal, then, is to hold one of these dominating draws when playing large pots.
  + Two auxiliary topics:
    - When you have a straight and the board contains a two flush (and you don’t hold that suit), you should proceed with caution.
    - The way to avoid getting freerolled is to avoid certain straight structures (i.e., sucker draws/wraps).
* **The nut full house freeroll**
  + If you have a full house, you’d prefer to have redraws to a better full house. This means holding cards that are higher than the board cards (e.g., A-K-Q-J on a Q-Q-J board).
* **Overfull vs. underfull**
  + The goal here is to be mindful that an underfull needs to be played cautiously when facing intense action.
    - Overfull
      * #1: Holding J-T-9-8 on a 9-9-8 board
      * #2: Holding J-T-9-9 on a 9-8-8 board
    - Underfull
      * #1: Holding 8-8-7-7 on a 9-9-8 board
      * #2: Holding J-T-9-8 on a 9-8-8 board
* Set-over-set
  + The preferred situation is to have top set rather than middle or bottom set.
  + Avoiding small pairs can help minimize the temptation to play lower sets.
* Flush-over-flush
  + Here the rule is simple: avoid putting in a lot of money with anything other than the nut flush.
  + By contrast a bare-ace bluff may be successful with position and/or opponents that can fold the 2nd nuts (or worse).
* Top set plus draws
* Dominating draws
* The nut-straight with redraws (aka the nut straight “freeroll”)
* Overfull or top-set with redraws
* Big nut straight draw
* The nut-flush or nut-flush draw
* Some combination of the above

groups starting hands into 6 categories:

* Big cards and Ace-high Broadway wrap hands
* Straight hands
* Suited Ace hands
* Pair-Plus Hands
* Aces
* Marginal hands

When playing for stacks in PLO, these are the sorts of hands you want to construct. This is the meaning of the “big play strategy”. Other strategies (e.g., what the author calls “small ball” in subsequent books) involve playing “lesser” (or “marginal”) hands and implementing other positional and tactics.

Straight Hands

13-Card Straight Draws

Let’s start with the 13-card straight draws. To achieve a 13-card draw, the cards in your hand need to interact with specific flop categories. Multiple hands can interact with a specific flop category to produce a 13-card straight draw. So, there are two ingredients here: the flop and your hand.

The first ingredient is the flop. There are four ways the flop can yield a 13-card straight draw. I.e., the flop must presents:

Two connecting cards (9-8-2)

A one-card gap (9-7-2)

A two-card gap (9-6-2)

Any two cards of unique rank from T to K (K-J-x, K-T-x, …)

The second ingredient is your hand. Your hole cards must be connected or have a single gap (top or bottom).

An unbroken 3-card rundown

A 3-card rundown with the gap on the top

A 3-card rundown with the gap on the bottom

The 3 Broadway cards not present on the 2-card Broadway flop

Together these two ingredients work together to produce the 13-card straight draws. However, the quality of the draw can vary greatly depending on the relative size of the hold cards when compared with the size of the flop.

Compare the equities of identical hand structures on a specific flop. Having cards that are larger than the flop yield 13 outs, which are nut outs. If the values are smaller than the flop, then a 13-card draw is possible but at most 7 outs are nut outs.

When compared head-to-head on a given flop, the 13-card nut-out draws are 2:1 favorites over the lesser 13-card draws.

Hands with 3 connectors on a two-connecting card flop

Q-J-T-x on a 9-8-2 flop

13 outs AND ALL ARE 13 nut outs

2:1 favorite versus 7-6-5-x on this flop

7-6-5-x on a 9-8-2 flop

13 outs BUT only 3 nut outs

2:1 dog versus Q-J-T-x on this flop

Hands with a 1-gap on a one-card gap flop

J-T-8-x on a 9-7-2 flop

13 outs AND ALL ARE 13 nut outs

2:1 favorite versus 8-6-5-x on this flop

8-6-5-x on a 9-7-2 flop

13 outs BUT only 3 nut outs

2:1 dog versus J-T-8-x on this flop

Hands with a 1-gap on a two-card gap flop

T-8-7-x on a 9-6-2 flop

13 outs AND ALL ARE 13 nut outs

A 57%/43% favorite on this flop

8-7-5-x on a 9-6-2 flop

13 outs BUT only 7 nut outs

A 43%/57% dog on this flop

Broadway hands with a 1-gap on a two-card Broadway flop

A-J-T-x on a K-Q-2 flop

13 outs AND ALL ARE 13 nut outs

A 65%/35% favorite on this flop

J-T-9-x on a K-Q-2 flop

13 outs BUT only 7 nut outs

A 35%/65% dog on this flop

16-card, 17-card and 20-card Wrap Draws

The 16-card nut wraps and the 20-card wraps require all four hole cards. In addition, the hole cards must contain at least one gap. The structures are

16-card nut wrap

A 3-card rundown with a 2-gap at the bottom

Q-J-T-7 on 9-8-x

Connectors with two single gaps at the bottom

Q-J-9-7 on T-8-x

The Broadway wraps

A-K-T-9 on Q-J-x

20-card wrap

A rundown with a 2-gap in the middle

Q-J-8-7 on T-9-x

Note that only 14 of the 20-card wrap outs are nut outs

The 17-card wraps require the use of three of the hole cards. The structure requires a total of two gaps:

17-card wraps

A 2-gap on bottom

J-T-7-x on 9-8-2

Has 17 outs, of which 11 are nut outs

A 2-gap on top

T-7-6-x on 9-8-2

Has 17 outs, of which 7 are nut outs

Two single 1-gaps

T-8-6-x on 9-7-2

Has 17 outs, of which 11 are nut outs

Equity Simulation

Take a sample Broadway Wrap hand (AKQx) and compare various permuations of its equity versus other hand ranges.

In this example, we compare equities versus a single player with ranges of {10%, 25%, 50%} and versus two players with identical ranges of {10%, 25%, 50%}.

Example Equity Simulations

Hero Hand vs. 10% vs. 25% vs. 50% vs. 2 x 10% vs. 2 x 25% vs. 2 x 50%

AKQx 43.89% 50.71% 53.90% 25.90% 32.29% 36.11%

AKQJ 44.84% 52.56% 55.59% 25.91% 33.43% 37.83%

AKsQJ 44.91% 52.46% 55.53% 25.99% 33.48% 37.86%

AKsQJs 44.90% 52.71% 55.77% 26.09% 33.52% 38.07%

First, let’s review the single-opponent equity differences, using the AKQx vs. 10% range as a base case (shown in the upper table).

As the opponent range widens from 10% → 25% → 50% versus AKQx, we see an equity increase in the hero’s hand of ~7% and ~10%. As we can see from the first table, the hand breaks-even against the 25% range and is a slight favorite against the 50% range.

As we increase the relative strength of the hand (i.e., exchange x for a J, include a single-suited and double-suited scenario) we see the overall strength of the hand improve. However, the magnitude of the increase due to hero’s hand improvement is smaller than the increase due to villain’s range widening.

In the lower table, we show the effect of hero’s hand improvement against the base case for each column (i.e., AKQx vs. 10%, AKQx vs. 25%, AKQx vs. 50%). This explicitly shows the increase in equity for each improvement in hero’s hand.

ΔEquity vs. (AKQX vs. 10%)

vs. 10% vs. 25% vs. 50%

AKQx 0.00% 6.82% 10.01%

AKQJ 0.95% 8.67% 11.70%

AKsQJ 1.02% 8.57% 11.64%

AKsQJs 1.01% 8.82% 11.88%

ΔEquity vs. (AKQX vs. X%)

vs. 10% vs. 25% vs. 50%

AKQx 0.00% 0.00% 0.00%

AKQJ 0.95% 1.86% 1.69%

AKsQJ 1.02% 1.76% 1.64%

AKsQJs 1.01% 2.00% 1.87%

1. Other strategies (e.g., what the author calls “small ball” in subsequent books) involve playing “lesser” (or “marginal”) hands and using positional and tactical tools to maximize profits in [somewhat more ambiguous situations]. [↑](#footnote-ref-1)