**Introduction**

***You don’t play against other players. You play against the course.***

A poker game involves two players, you and the gauntlet laid out in front of you by your opponents. This gauntlet creates challenges and puts up obstacles. It’s your job to analyze the problem, formulate a strategy, then execute.

***If you pick the right strategy, and your execution is crisp, the winning takes care of itself.***

In poker, it’s easy to get distracted by all the other players. **It’s all noise. Ignore it.** If you don’t, you risk getting caught in a dangerous trap – trying to change your opponents.

Your opponents, by the strategies they use, decide where to put sand traps and water hazards and also where to lay down fairways and greens. **The more flawed your opponents’ strategies, the wider the fairways and the bigger and more forgiving the greens**. Your first job is to survey the course. Every time you sit down to play, examine the action to determine where the hazards lie and the location of plum landing spots. Next, devise a strategy to hit the goods spots as often as possible and then execute.

**SURVEY 🡨🡪 STRATEGIZE 🡨🡪 EXECUTE**

Poker’s short-term luck factors serve to **obscure relative skill levels** among players. The noise of hand-to-hand results often hides the edge better players enjoy. With a dash of self-delusion many people play for years thinking they are among the best players in the room, when in reality they are amongst the worst players.

***Your poker goals are attainable if you study the right concepts and put forth enough effort.***

View poker as an **exercise in self-improvement**.

**Part I: The 30,000 Foot View**

There are two things to consider when starting out:

1. What niche within the NLHE ecosystem you should position yourself.
2. How to develop the game skills to become an accumulator rather than a donator.

There are two playing formats within two arenas:

* Cash (ring) games versus tournaments
* Live versus online
  + Anyone who regularly plays live cash games is lousy at the game (author’s opinion, 2015). “Lousy” relative to great players not relative to other lousy players. There is an **enormous skill gap** between average and great players. Average players wouldn’t just lose to great players, they’d be embarrassed, tortured. They would lose so fast they wouldn’t have time to process what happened to them!
  + The best players have gotten better far, far faster than average live cash-game players.
  + It’s relatively easy to win at live cash games. But it’s considerably harder to win at more than $50/hr and extremely difficult to win at more than $200/hr.

**Where Does the Money Come From?**

**Folding** is, without a doubt, an important skill. **But it does not make you money**. When you fold, you win nothing.

Understanding, as specifically as possible, where the money comes from is extremely critical.

* You want to identify the behavior that puts money in your stack.
* Once you know what those actions are, you can take more of them, so more money will appear in your stack.
* Conversely, if you don’t know what you’re doing right, then you can’t intentionally do more of what’s needed.

You accumulate money by taking profitable actions that your opponents **don’t take to** **at least break even**.

All the money you make playing poker at any level will come from **players who call or raise too much**. On average, they’re putting too much money into pots, and you’re taking from these pots more than your share.

There are two ways to get money out of a pot and your strategy to will repeatedly capitalize on both ways:

1. You can win it at showdown.
2. You can bet and get everyone to fold.

At a theoretical level, a perfect player starts out with a bunch of hands. After each betting round, this set of hands gets trimmed down. Finally on the river, the perfect player is left with a relatively few hands that withstood the action. Let’s imagine that the pre-flop, flop, turn, and river percentage (frequencies) of all hands is A, B, C, and D respectively.

* The average player deviates – oftentimes substantially – from these “optimal” frequencies.
* In those cases where players deviate too high above optimal, it is your job to extract some portion of this money “overallocation”. When players overfold on and after the flop, that is the B, C, and D plummet due to overly high A, you again have to be in position to collect money from this overfolding.

**The money available to a player winning long term comes from other players’ willingness to put money into the pot with bad hands that a perfect player would not play**.

If your strategy is simply to outfold your opponents – commonly referred to as a “nit” strategy – in many pots, you’ll be folding way too often. Couple this with an optimal A strategy and your own B, C, and D will fall far short of optimal. Despite your opponents’ poor play, he may wind up extracting money from you instead of the other way around.

The money you make playing poker at any level will come from **players who call or raise too much**. On average, they’re putting too much money into pots, and you’re taking from these pots more than your share.

**In poker, you make money by catching your opponents playing too many hands on every street**. The way you get at that money is by betting or raising into those opponents who simply play too many hands.

* You can bet or raise with good hands to get paid.
* You can bet or raise with bad hands as a bluff.

Beware! **Nits** can start out pots by playing too many hands, but actually be playing too few hands by the river. If you bet the flop and turn, they fold so many hands on those two streets that they’re left only with strong hands by the river.

* So, while it’s safe to assume that your opponents play too many hands, you must **reevaluate** that assumption after every betting round. When you suspect that opponents may have folded so many hands that they are left only with their strongest hands, **you get out of the way**.
* If you consistently bet at players when they have too many hands but get out of the way once they’ve folded down to too few hands, you will get the money.

**Each skill taught in this book is designed to ensure three things:**

1. You’re attacking opponents when they play too many hands.
2. You’re getting out of the way when opponents’ strategies leave them with only strong hands.
3. You’re rarely caught playing too many hands yourself.

**Part II: Beating Live 1-2 Games**

**Skill #1 Play a Simple and Effective Pre-Flop Strategy**

Goals of a simple and effective pre-flop strategy:

* Avoid getting caught playing too many hands.
* Play hands that help us win money opponents **are willing to give us** and avoid all other hands.
* You want to play hands that are likely to be the best to bet and raise with on a **wide range of boards**.

The **first mistake most players make** is to think about all the ways the flop can give them a monster. Then, when the flop disappoints them (which it usually does), they basically give up.

There are two big problems with the “let’s try to hit a flop” mindset:

* It leads people to play too many hands pre-flop, since lots of two-card combos can foreseeably make a big hand.
* Money does NOT come from “hitting flops”. There is no such thing as “flop-hitting skills”.

Some hands naturally hit more flops than others, but no player is any better at hitting flops than another. When you’re playing a 1-2 game, guess what your opponents are trying to do?

***You can’t play the same way your opponents play and expect to win.***

Where does the money come from?

* It comes from betting and raising when your opponents play too many hands.
* It comes from getting out of their way when – after a round or two of betting – they are left with only strong hands.
* Identifying situations that call for a bet or raise, and then executing.

You can, of course, bet or raise with any two cards. But you’ll tend to have better **equity-when-called** (**EWC**) when you bet with cards that have superior range-over-range equity. For example, T9s+ has far better range equity that 72o+.

**Total Equity = Showdown Equity + Fold Equity**

**EWC = Equity | Failed Bluff on Turn or Earlier**

***EWC is a key concept when determining pre-flop hand selection.***

**Suitedness**

The value of suitedness can’t be overstated. It’s enormous – even though you make a flush only 6% by the river. Some players don’t believe 6% is all that valuable but:

* Flushes are big hands and almost always wins the pot and an additional 6% edge becomes very valuable.
* Flushes oftentimes bring down big pots.
* Flushes have good multi-way pot playability.
* Even though flushes don’t materialize all that often, flush draws on the flop occur considerably more often.

Although 6% seems like a small edge, in context to everything else, 6% becomes a massive edge.

***Suitedness is the most important factor a hand can have when it comes to EWC.***

**Big Cards**

Big cards are JJ+ / AK / AQ / KQs / KJs / AJs / QJs

The power of big cards comes from the times they connect with the flop as well as the EWC on low disconnected flops.

Big cards also give you a way to win medium pots with top pair.

Hands like A6o and K8o are essentially junk in the vast majority of common scenarios in live no-limit games. Add suitedness to these otherwise junk hands and sometimes you get playability. The suitedness along with the marginal big card value can give them enough EWC on many boards to get them into playable range.

**Connectedness**

Connectedness can substitute for big cards to makes hands like 98s and 65s playable. Offsuit connected hands like 98o are rarely playable in a typical 9- or 10- handed live no-limit game.

Many players get in trouble with suited connectors because they play them only for their ability to make big hands – “I’ll get in cheap to see a flop and if I don’t clobber my hand I’ll fold and get out.”

* Once again, this mindset doesn’t get the money!

You’re looking for situations where your opponents are playing too many hands, and your goal is to bet and raise them in these situations. You’ll bet and raise strong hands and hope to get called, but you’ll also bet and raise weak hands, preferably those with good EWC, to exert your fold equity.

Suited connectors are the **champions of EWC**. They rarely flop big hands, but very often they flop strong equity since they hit the widest range of possible flops including flush draws, straight draws (open-end, double belly buster, gutshot), backdoor draws, and bottom / middle pair.

These possibilities are indeed “hits” as long as you’re not depending on winning at showdown to get value. Hands like these tend to be the best choices to bet as bluffs on the flop and turn.

**Small Pairs**

Suited connectors rarely flop big hands but have strong EWC on a **wide range of boards**.

On the other hand, small pairs flop big hands (sets) but generally have terrible EWC if you don’t connect on the flop. This makes small pairs okay hands with which to 3-bet or 4-bet bluff preflop but generally are last-resort choices with which to bluff post-flop.

Sets are so valuable you naturally want to play your small pairs if you can see a flop for reasonably cheap.

On many boards, the threat you could be holding a set is what gives your aggressive betting much of its power. If you decided to stop playing small pairs and told your opponents so, you’d be unable to play aggressively with any real effect on those boards with two or three small cards.

**General Preflop Thoughts and Considerations**

Most players think the goal of pre-flop play is to see the flop with hands with which they can win big pots.

However, the actual goal of pre-flop play is to get yourself into situations where you can take advantage of the errors your opponents make. The biggest error being time and again of giving too much action with too many hands.

How do you exploit this omnipresent leak? **Play fewer hands than they do** and **raise with the hands you do play**.

***Raise every hand you play pre-flop.***

The biggest error your opponents consistently make preflop is they play too many hands. After the flop, your opponents will **differentiate** themselves.

* Some will fold too many hands.
* Some will call down too much.
* Some will be too aggressive.

When you get and raise preflop, you build pots early and this naturally increases the size of bets on all future streets. This magnifies every error your opponent can make.

Raising every hand hides information from your opponents. When you limp some hands and raise others, you’re splitting your range in two and this makes hand reading for observant opponents much easier.

Most people limp too frequently. It is your job to exploit them.

There’s another benefit to raising every hand and that is it teaches you discipline. It makes you less likely to play junk hands just because you’re bored or tilted or otherwise not thinking clearly.

If someone has raised in front of you, you are not compelled to reraise (though you should reraise more often than the typical live player). It is important to think about what a “raising hand” might mean for each opponent.

* If you opponent is a chronic limper, then a raise from that opponent basically bifurcates their range into limping hands and raising hands. Subsequently, you get out of the way of raised hands from this opponent and raise their limped hands ruthlessly.

Observing and heeding these cues is the **bedrock principle** of winning NLHE.

* “Aggros” raise every time preflop. However, unlike “ABCs”, the aggros’ primary leak is they play too many hand preflop. Validate your profiling by observing hands they reveal at showdown. If validated, either raise these players ruthlessly preflop or call their preflop raises and attack them postflop.
* Other players vary their raising standards significantly by position. For example, they limp from early position with marginal hands and raise only with their strongest range. On the button, they tend to widen their raising range. Again, it is fine to attack these raises either with preflop reraises or Postflop aggression.
* In a 1-2 game, when tight opponents reraise preflop, they tend to have a narrow range of very strong hands. This is a critical time to get out of the way.

Each table you play will be different. One table might demand that you make a lot of medium-sized flop and turn bets to get people to fold out bad hands. Another table might require you to plan your action around inducing and calling large bluff bets from your opponents. The trick is to play the course as it comes to you, rather than try to impose your will upon it. This process begins with preflop.

**Preflop Frequencies**

Enforcing preflop frequencies is a good way to make sure you don’t play too many hands preflop. There are certain frequencies that if implemented can help you become a winning 1-2 player.

**Early Position**

**Table A** shows the starting hands for EP players that includes UTG to HJ. If **you are first to act** then you should raise first-in (**RFI**) every hand shown in Table A.

* If there is a raise in front and that raise suggests a strong hand, then follow the **TR Response** (left of “/”).
* If there is a raise in front by a loose player or someone that never limps, then follow the **LR Response**.
* Note that when a “chronic limper” raises, you should follow the **TR Response**. This bet **is not** a “raise by a tight player” but often the strong combos from a bifurcated range typical of weak passive players.

In different game environments, you would tweak this list by taking out some of the weakest hands and including other hands with different features. For example, you may remove A6s or 76s and add in AJo.

**Cutoff**

**Table B** shows the starting hands for the cutoff and represents 22% of all combos.

**Button**

**Table C** shows the starting hands for the cutoff and represents 22% of all combos

**The Button**

**The Blinds**

**The High Points**

**Multi-Way Pots and Loose Games**

**Skill #2 Don’t Pay People Off (81 – 91)**

Skill #1 is all about developing a **reasonable** **preflop strategy**. Although straightforward, it does not address how to tweak hand selection based on table dynamics or opponents’ toughness.

The main preflop themes for 1-2 are:

* Play tight overall.
* Play tighter against raises.
* RFI exclusively. In other words, **absolutely no limping**.
* Avoid offsuit hands.
* If an opponent’s bet alludes to a strong range, fold hands that can’t compete with that range.

Skill #1 is not about earning money since it is a **folding skill**[[1]](#footnote-1)that focuses on discipline designed to **avoid bleeding money**[[2]](#footnote-2).

Skill #2 is **also a folding skill**, and it is critical when you’re put to a big design postflop.

**Hand Example** Everyone starts with $200. You have no information about your opponents.

You open in EP for $7 with A♦K♠ and get called by two players and both blinds.

**Analysis** SPR = ($193 / $35) = 5-ish

|  |  |
| --- | --- |
| Player | Reasonable Range |
| SB / BB | **30% – 50%**; if LE 3% → {3-bet | RFI size, two flats, postflop OOP}; {check / fold postflop | doesn’t smash the flop} |
| FC1 | **20%**; {20% - 50% | EP ↔ LJ}; {100% | HJ ↔ CO} |
| FC2 | **30%**; {10% - 20% | EP ↔ HJ}; {100% | B ↔ CO} |

Flop A♥7♥6♠ → SB / BB check → you bet $30 → {FC1, FC2, SB, BB → flats, folds, flats, folds}

**Analysis** SPR = ($163 / $125) = Low

|  |  |
| --- | --- |
| Player | Reasonable Range |
| BB / FC2 | Didn’t catch an ace, diamond draw, straight draw; didn’t catch mid/bot pair with (J♥+, 8, 5) to attempt backdoor flush / straight draw; no pairs |
| SB / FC1 | Flat suggests draw given huge implied odds 6:1 to 13:1; lone high card makes straight draw more likely than flush draw; SB stronger than FC1 since flop hits SB range better |

Turn 8♥ → SB all-in → you ???

**Analysis** SB is shoving OOP with two players behind.

Shoving into preflop raiser and one other player, both of whom have position.

From your perspective, could SB have?

* {AA, 77, 66}: no; would have lead out on the flop to “protect” against draws and string Ax hands along with 77 and 66; the A in your hand and the flop pares down to only 1 AA combo and preflop and postflop bets reinforce no AA; there is a very slim chance that SB in sandbagging with a set of aces but potential completion of draws by the turn make this holding unlikely.
* Any other pairs: no; shoving with KK – TT would be unhinged given OOP, A on flop, and two players behind.
* ATo+: possibly if the player is a complete noob; this is the most worrisome scenario since you’d be folding massive equity; how can you get solace that folding is the correct play?
  + Bet size suggests strength that’s crushing you AK as opposed to errant value being put on an Ax that is being dominated.
  + If SB had Ax, the bet would probably be a smaller bet like ⅓ to ½ pot.

♣♦♥♠

**Multi-Way Pots and Loose Games**

**Skill #3 Assess Your Hand Value**

**What Weaker Hands Will Call?**

**Streets of Value**

**Which Streets?**

**Slowplaying**

**Don’t “Protect” Your Hand**

**Bet Sizing**

**Getting Value in Multi-Way Pots and Loose Games**

**Final Thoughts**

**1-2 Hand Quizzes**

**Hand 1**

**Hand 2**

**Hand 3**

**Hand 4**

**Hand 5**

**Hand 6**

**Hand 7**

**Hand 8**

**Hand 9**

**Hand 10**

**Hand 11**

**Hand 12**

**Part III: Beating Live 2-5 Games**

**Skill #4 Barreling**

**Continuation Betting**

**Barreling Beyond the Flop**

**Bet the Turn**

**Multi-Way Pots and Loose Players**

**Final Thoughts**

**Skill #5 Evaluating Board Texture**

**Static versus Dynamic Boards**

**Dry versus Wet Boards**

**Two Non-Ace Wheel Cards**

**Monochrome Boards**

**Boards with (or without) Key Cards**

**Multi-Way Pots and Loose Games**

**Final Thoughts**

**Skill #6 Making Live Reads**

**Bet-Sizing Tells**

**Physical Appearance**

**Betting Fashions**

**Physical Tells**

**Final Thoughts**

**Skill #7 Emotional Numbing**

**The Pitfalls of Running Good**

**The Pitfalls of Running Bad**

**Measuring Success**

**Final Thoughts**

**2-5 Hand Quizzes**

**Hand 1**

**Hand 2**

**Hand 3**

**Hand 4**

**Hand 5**

**Hand 6**

**Hand 7**

**Hand 8**

**Hand 9**

**Part IV: Beating Live 5-10 Games**

**Skill #8 Exploiting Aggression**

**Bloated Betting Frequencies**

**The Give-Up**

**The Last-Ditch Effort**

**The Bully**

**Skill #9 Playing Deep**

**Not a Totally Different Game**

**Deep Stacks, In Practice**

**Final Thoughts**

**Skill #10 Taking on the Pros**

**Reversing Live Reads**

**Finding Their Leaks**

**Game-Theory Optimal Play**

**5-10 Hand Quizzes**

**Hand 1**

**Hand 2**

**Hand 3**

**The Next Step**

**The Main Course**

**Tournament Play**

**Live Reads and Tells**

**Higher-Level Poker Thinking**

**Final Thoughts**

**Conclusion**

**Acknowledgements**

**Table A Starting Hands for Early Position (UTG to HJ, inclusive)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Hands | TR / LR Response | Combos | Cumulative Combos | Frequency | Cumulative Frequency |
| JJ – 22 | Flat / Flat | 60 | 60 | 4.5% | 4.5% |
| QQ | Flat / 3-Bet | 6 | 66 | 0.5% | 5.0% |
| AA – KK | 3-Bet / 3-Bet | 12 | 78 | 0.9% | 5.9% |
| A4s – A2s | Flat / Flat | 12 | 90 | 0.9% | 6.8% |
| A5s | 3-Bet / 3-Bet | 4 | 94 | 0.3% | 7.1% |
| A9s – A6s | Flat / Flat | 16 | 110 | 1.2% | 8.3% |
| AQs – ATs | 3-Bet / Flat | 12 | 122 | 0.9% | 9.2% |
| Aks | 3-Bet / 3-Bet | 4 | 126 | 0.3% | 9.5% |
| AQo | Flat / 3-Bet | 12 | 138 | 0.9% | 10.4% |
| AKo | 3-Bet / 3-Bet | 12 | 150 | 0.9% | 11.3% |
| KJs, KTs, QTs | Flat / Flat | 12 | 162 | 0.9% | 12.2% |
| KQs – JTs | Flat / Flat | 12 | 174 | 0.9 | 13.1% |
| T9s | Flat / 3-Bet | 4 | 178 | 0.3% | 13.4% |
| 98s | Flat / Flat | 4 | 182 | 0.3% | 13.7% |
| 87s | Flat / 3-Bet | 4 | 186 | 0.3% | 14.0% |
| 76s | Flat / Flat | 4 | 190 | 0.3% | 14.3% |

**Table B Starting Hands for the Cutoff**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Hands | TR / LR Response | Combos | Cumulative Combos | Frequency | Cumulative Frequency |
| TT – 22 | Flat / Flat | 54 | 54 | 4.1% | 4.1% |
| JJ | Flat / 3-Bet | 6 | 60 | 0.5% | 4.5% |
| AA – QQ | 3-Bet / 3-Bet | 18 | 78 | 1.4% | 5.9% |
| AKs | 3-Bet / 3-Bet | 4 | 82 | 0.3% | 6.2% |
| AQs – A8s | Flat / Flat | 20 | 102 | 1.5% | 7.7% |
| A7s | 3-Bet / 3-Bet | 4 | 106 | 0.3% | 8.0% |
| A6s | Flat / Flat | 4 | 110 | 0.3% | 8.3% |
| A5s – A2s | Flat / 3-Bet | 16 | 126 | 1.2% | 9.5% |
| KQs – K9s | 3-Bet / Flat | 16 | 142 | 1.2% | 10.7% |
| K8s – K7s | Fold / Flat | 8 | 150 | 0.6% | 11.3% |
| QJs – Q9s | Flat / Flat | 12 | 162 | 0.9% | 12.2% |
| JTs | Flat / Flat | 4 | 166 | 0.3% | 12.5% |
| T9s | Flat / 3-Bet | 4 | 170 | 0.3% | 12.8% |
| 98s | Flat / Flat | 4 | 174 | 0.3% | 13.1% |
| 87s | Flat / 3-Bet | 4 | 178 | 0.3% | 13.4% |
| 76s – 65s | Fold / Flat | 8 | 186 | 0.6% | 14.0% |
| 54s | Fold / 3-Bet | 4 | 190 | 0.3% | 14.3% |
| 43s | Fold / Fold | 4 | 194 | 0.3% | 14.6% |
| J9s – 86s | Flat / Flat | 16 | 210 | 1.2% | 15.8% |
| 75s – 53s | Fold / Fold | 12 | 222 | 0.9% | 16.7% |
| AKo | 3-Bet / 3-Bet | 12 | 234 | 0.9% | 17.6% |
| AQo – AJo | 3-Bet / Flat | 24 | 258 | 1.8% | 19.5% |
| ATo | Fold / Flat | 12 | 270 | 0.9% | 20.4% |
| KQo | Flat / Flat | 12 | 282 | 0.9% | 21.3% |
| KJo | Fold / Flat | 12 | 294 | 0.9% | 22.2% |

**Table C Starting Hands for the Button**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Hands | TR / LR Response | Combos | Cumulative Combos | Frequency | Cumulative Frequency |
| TT – 22 | Flat / Flat | 54 | 54 | 4.1% | 4.1% |
| JJ | Flat / 3-Bet | 6 | 60 | 0.5% | 4.5% |
| AA – QQ | 3-Bet / 3-Bet | 18 | 78 | 1.4% | 5.9% |
| AKs | 3-Bet / 3-Bet | 4 | 82 | 0.3% | 6.2% |
| AQs – A8s | Flat / Flat | 20 | 102 | 1.5% | 7.7% |
| A7s | 3-Bet / 3-Bet | 4 | 106 | 0.3% | 8.0% |
| A6s | Flat / Flat | 4 | 110 | 0.3% | 8.3% |
| A5s – A2s | Flat / 3-Bet | 16 | 126 | 1.2% | 9.5% |
| KQs – K9s | 3-Bet / Flat | 16 | 142 | 1.2% | 10.7% |
| K8s – K7s | Fold / Flat | 8 | 150 | 0.6% | 11.3% |
| QJs – Q9s | Flat / Flat | 12 | 162 | 0.9% | 12.2% |
| JTs | Flat / Flat | 4 | 166 | 0.3% | 12.5% |
| T9s | Flat / 3-Bet | 4 | 170 | 0.3% | 12.8% |
| 98s | Flat / Flat | 4 | 174 | 0.3% | 13.1% |
| 87s | Flat / 3-Bet | 4 | 178 | 0.3% | 13.4% |
| 76s – 65s | Fold / Flat | 8 | 186 | 0.6% | 14.0% |
| 54s | Fold / 3-Bet | 4 | 190 | 0.3% | 14.3% |
| 43s | Fold / Fold | 4 | 194 | 0.3% | 14.6% |
| J9s – 86s | Flat / Flat | 16 | 210 | 1.2% | 15.8% |
| 75s – 53s | Fold / Fold | 12 | 222 | 0.9% | 16.7% |
| AKo | 3-Bet / 3-Bet | 12 | 234 | 0.9% | 17.6% |
| AQo – AJo | 3-Bet / Flat | 24 | 258 | 1.8% | 19.5% |
| ATo | Fold / Flat | 12 | 270 | 0.9% | 20.4% |
| KQo | Flat / Flat | 12 | 282 | 0.9% | 21.3% |
| KJo | Fold / Flat | 12 | 294 | 0.9% | 22.2% |

1. Note that you do earn money if all your opponents fold when you RFI. [↑](#footnote-ref-1)
2. A poker chip saved is a poker chip earned. [↑](#footnote-ref-2)