Do I Go Breakeven?

Simple answer: no.

Breakeven (BE) feels safe, but it quietly destroys the math that makes a high R-multiple system work. The reason is **expectancy**.

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1) Expectancy 101

Expectancy (per trade)

$$E = (\text{Win\%} \times \text{Avg Win}) - (\text{Loss\%} \times \text{Avg Loss})$$

When your backtest only logs **TP or SL** (binary outcomes), that expectancy is calibrated to **two** endings. Adding BE creates a **third outcome** and changes the win/loss distribution you proved in testing.

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2) Why BE hurts high-R setups

Baseline system (example): 40% win rate, average winner **6R**, loser **−1R**.

- **Without BE:**

$$E = (0.4 \times 6R) - (0.6 \times 1R) = 2.4R - 0.6R = **+1.8R**/trade$$

- **With BE** (half of would-be winners get cut to BE): Distribution → 20% TP (+6R), 20% BE (0R), 60% SL (−1R)

$$E = (0.2 \times 6R) + (0.2 \times 0R) - (0.6 \times 1R) = 1.2R - 0.6R = **+0.6R**/trade$$

Conclusion: Expectancy collapses from **+1.8R** to **+0.6R** because BE amputates the winners that carry the edge.

> **Key point:** A −1R loss hurts far less than killing the +6R winners that fund the system.

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3) The fix: de-risk with partials, not BE

Idea: Take a **small partial** at a sensible milestone, leave the rest to target. This keeps most of the winner's value while reducing variance and psychological drawdowns.

3a) Expectancy with partials (clean algebra)

Assume: - Win rate = **p** - Full target = **T R** - Loss = **1 R** - Take partial fraction **f** at **a R** (and do **not** change the original stop before partial is hit)

If we conservatively assume **only full winners** reach the partial level (safe lower bound), then a winner's value becomes:

$$V_{\text{win}} = f\,a + (1-f)\,T$$

Expectancy with partials:

$$E_{\text{partial}} = p\,[f\,a + (1-f)\,T] - (1-p)\,1$$

This is just the original expectancy **minus a small \"tax\"** for taking some profits early:

$$E_{\text{partial}} = \underbrace{pT - (1-p)}_{\text{original}} \; - \; \underbrace{p\,f\,(T-a)}_{\text{expectancy tax}}$$

> The earlier and larger the partial (big **f**, small **a**), the bigger the tax. Place partials **late and small** to preserve edge.

3b) Concrete numbers (same 40%/6R system)

- **Partial @ 2R, take 1/3**, let 2/3 run to 6R:
- Winner value: $\frac{1}{3}\cdot 2R + \frac{2}{3}\cdot 6R = 0.667R + 4R = **4.667R**$
- $E = 0.4 \times 4.667 - 0.6 \times 1 = 1.867 - 0.6 = **+1.267R**/trade$

- **Compare:** +1.8R (baseline) → **+1.27R (partials)** → +0.6R (BE)

- **Partial @ 3R, take 25%**, let 75% run to 6R:

- Winner value: $0.25\cdot 3R + 0.75\cdot 6R = 0.75R + 4.5R = **5.25R**$
- $E = 0.4 \times 5.25 - 0.6 = 2.10 - 0.6 = **+1.50R**/trade$

> **Takeaway:** Sensible partials reduce expectancy somewhat, **but far less** than BE. You retain most of your edge while lowering variance and emotional drawdown.

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4) After the partial: what to do with the stop?

- **Conservative:** Keep original stop until partial hits; **after partial**, move stop to **reduce risk**, but not necessarily to full BE immediately (e.g., trail to **−0.25R** or to structure low). This avoids chopping the remainder.
- **If you must use BE:** Only move to BE **after** banking a partial that leaves the trade **net non-negative** even if the remainder stops. (Example: bank $\geq 0.33R$ before BE on the rest.)

- **Time-based exit:** If price stalls after partial, use a time stop or structure-based exit instead of hard BE.

Principle: **Lock something, leave room**. Don't suffocate the runner that pays for the losers.

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5) Practical templates

High-R systems (T $\geq$ 4R) - Partial **10–33%** at **2–3R**; leave the rest to target. - Consider a gentle stop tighten (e.g., to **−0.25R**) only **after** the partial.

Moderate-R systems (T = 2–3R) - Either **no partials** or a **small partial late** (e.g., 10–20% near 2R). Early partials take too much value.

Low-R systems (T $\leq$ 2R) - Partials usually **don't make sense**; any early skim guts expectancy.

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6) What to measure (so you're not guessing)

- **Hit rate to partial level (HP):** % of trades that touch your partial level.
- **Retrace rate after partial (RR):** % of trades that would have hit BE/stop **after** partial.
- **Effective winner value:** Realized average after partial & stop rules.
- **Variance & drawdown:** Expectancy matters, but so does your ability to **stick to the plan**.

Recalculate E_{partial} using your real HP/RR. If the tax is small versus the **variance reduction** (and your psychology), partials are doing their job.

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7) It depends — when BE/partials help or hurt

Expectancy is **path-dependent**. Breakeven (BE) and partials are just **management overlays** on top of your entries/exits, so whether they help or hurt **depends on your system's distribution**. Cases exist where BE **improves** expectancy (and risk of ruin), and cases where it **reduces** it. Same for partials.

Key factors that swing the result: - **Win rate (p) & target size (T):** High-R/low-p runners usually get hurt by early BE; lower-R/higher-p systems can benefit from BE that avoids give-back. - **MFE/MAE shape:** How often trades reach your **favorable excursion** to the partial/BE level before failing; typical pullback depth. - **Volatility vs BE distance:** If BE sits **inside normal noise** (e.g., < ~0.5 ATR or within usual swing retrace), you'll get chopped. If it's outside, BE may protect without amputating winners. - **Entry quality/timing:** Entries that commonly **retrace to entry** make BE destructive; entries taken after confirmation (less snap-back) tolerate BE better. - **Streakiness/correlation of outcomes:** In clustered losing streaks, BE can **limit drawdown**; partials can **smooth equity** even if they shave some expectancy. - **Execution frictions:** Spread/slippage/commissions can **erase small partials** or make frequent BE flips costly. - **Trigger logic for BE/partials:** Time-based vs. structure-based vs. "at X-R," plus **BE+ (lock a few ticks)** vs exact BE. Rules matter more than labels. - **Product microstructure:** Index futures vs FX vs crypto; gaps, news locks, and session behaviors shift the value of BE/partials. - **Risk framework:** Daily/weekly loss caps and (for props)

trailing drawdown; banking partials may interact favorably with trailing rules. - **Sizing model:** Fixed-R vs dynamic; scaling in/out changes the effective value of partials. - **Sample size & stationarity:** Small/backfit samples lie; test **out-of-sample** across regimes. - **Psychological adherence:** If partials help you **hold the remainder**, your realized expectancy may **increase** even if theoretical E dips. - **Cycle incentives (prop context):** Even if per-trade E shrinks, BE that **avoids rule breaches** and boosts **payout hit-rate** can raise **cycle-level expectancy**. - **Time at risk/regime:** Trendy regimes punish BE; mean-reverting grind may reward small partials.

What to do: Parameter-sweep it. Backtest BE triggers (distance, time, structure) and partial schemes (fraction **f**, level **a**) and recompute: expectancy, variance, drawdown, and **cycle-level** outcomes. Keep the rule set that your data—not your feelings—supports.

8) Bottom line

- **BE is an emotion hack** that often taxes the very winners that fund your system.
- **Partials are a math-honest compromise**: you **de-risk to a degree**, keep most of the edge, and stay in the game long enough to collect it.

Rule of thumb: If your backtested expectancy is strong **without** BE, don't add BE. If you need risk relief, use **small, late partials**, then give the remainder room to work.