Time decay: the option's clock

> **TIME DECAY**
>
> The erosion of an option's time value as expiry approaches - the built-in clock that works against every buyer and for every seller. Decay is not linear: it accelerates as expiry nears, so a long option loses time value slowly at first and rapidly in its final weeks. It is the option buyer's standing cost, the price of the possibility they bought, running down every day whether the underlying moves or not.

An option has something no share has: an expiry, and therefore a clock. Time value decays toward zero as that clock runs down - and the decay is the buyer's standing cost, the futures roll's cousin, working against the long position every single day.

The decay, and its acceleration

Time value is payment for remaining possibility, and possibility shrinks as expiry nears - so time value erodes, reaching zero at expiry when no possibility remains. The erosion is not steady: it accelerates, slow while expiry is distant and rapid in the final weeks and days, because the possibility a distant option represents fades gently while a near one collapses. A long option held toward expiry loses time value at an increasing rate - the reason holding options to expiry is rarely how they are traded, and the reason time is the buyer's enemy.

Who it helps and hurts

The buyer's standing cost: a long option pays time decay every day, losing value even if the underlying is flat - the price of the possibility bought, the option-buyer's equivalent of the futures roll running against them.The seller's standing income: a short option collects time decay - the mirror, the seller earning the erosion the buyer pays, which is the whole logic of premium-selling strategies.The flat-market verdict: in a still underlying, the buyer loses to decay and the seller gains - so a bought option needs the underlying to move enough, soon enough, to outrun the clock.

Why decay reshapes the strategy

Time decay means a bought option is a race: the view must be right and timely, because a correct view that arrives too slowly loses to the clock anyway - the option can expire worthless while the underlying eventually does exactly what the buyer expected, too late. This is the single most common way retail option buyers lose: right direction, wrong timing, killed by decay. And it is why the seller's side exists - collecting the decay the buyer fights - with its own danger, the open risk of module 4. Decay is the clock that makes options a timing instrument, not just a direction one, which module 5 makes a whole judgement.

Check your understanding

1. How does time decay behave as expiry approaches?

a. It is steady throughout

b. It accelerates: slow while expiry is distant, rapid in the final weeks - so a long option loses time value at an increasing rate toward the end

c. It reverses near expiry

Answer: b. Possibility fades gently when distant and collapses when near. The acceleration is why holding options to expiry is rarely how they are traded - time is the buyer's enemy.

2. What is the most common way retail option buyers lose?

a. Choosing the wrong underlying

b. Right direction, wrong timing: a correct view that arrives too slowly loses to decay - the option expires worthless while the underlying eventually moves as expected, too late

c. Paying too much commission

Answer: b. Decay makes a bought option a race against the clock. A view can be right and still killed by timing - which is why module 5 makes timing a whole judgement.