



## Theta

Theta records the decrease in the premium as time to expiration decreases. Each day, the premium falls. Theta measures the one day negative change in premium until the expiration date. The actual amount of premium lost is called alternating terms, such as premium decay or premium erosion. Theta is also called Time Decay.

Theta has adverse effects on option holders. It can even create losses for traders in otherwise profitable positions. The value of the option you hold can never increase due to time, since the option will eventually expire. Every option will either be exercised, at which point it is equal in value to the underlying asset, or worth absolutely nothing. There are no other options. If the option cannot be exercised, it has no value.

An option's value comes from the combination of time premium and the option's money status. If the option is "in the money", the value is combined with the time premium. When the time value hits zero, the option's value will only be the amount that it is "in the money". If the option is "out the money" the value from exercising the option is zero and all of the option's value is equal to its time value. If the option is still out the money at expiration, there is no profit from exercising the option and no time value remaining. The option is worthless.

As an option nears expiration, time value loss accelerates for all options. This occurs regardless of their money status. Money status only changes the rate of loss. An "at the money" option will decrease in time value faster than in the money or out the money options. At the money option premiums have higher time value than deep in or out the money options. If an option has a higher time value, it has higher amounts of time value to erode. Options with more time value built into them will have higher theta values than other options.