Gamma

Gamma is the **rate of change of an option's delta** for a $1 move in the underlying asset. To illustrate, imagine a 2000 strike call option has a 50 delta (0.50) with the spot price of the underlying equal to $2000. If the spot price increases by $1, the option will increase in value by $0.50, and the delta will change too. Imagine the delta increases to 52 (0.52). The 0.02 change in delta is approximately equal to the gamma of the option.

Gamma is the Greek which clearly identifies the power of options. Other products like leveraged perpetuals and futures can offer enhanced first order exposure to an asset, but it is the second derivative properties of options which give them their **non-linearity** or **convexity.** Options with gamma **increase in value at an increasing rate** if the underlying moves in the desired direction.

The gamma of a given option changes with respect to time. For an out-of-the-money option, gamma is maximized when the option is far away from expiration. For an at-the-money option, gamma is maximized near expiration.