Here is an example:

Current situation:

Mean(CORR) = 0.0318

Mean(MMC) = 0.015

In two months:

Mean(CORR) = 0.0418

Mean(MMC) = 0.0175

Marginal values:

Delta(CORR) = 0.0418 - 0.0318 = 0.01

Delta(MMC) = 0-0175 - 0.015 = 0.0025

New "w"

:

w 0.01 = (2-w) 0.0025 => w = 0.4

An alternative

to avoid too much fluctuations or negative marginal values would be to consider total value instead of marginal values

:

w 0.0418 = (2-w) 0.0175 => w = 0.6

In general, w = 2/(1+Mean(CORR)/Mean(MMC))

with this particular cases:

Mean(MMC) = 0 => w=0 => payout = 2 MMC ; the current MMC competition

Mean(MMC)=Mean(CORR) => w=1 => payout = CORR + MMC ; the master_key proposal

Mean(CORR)=0 => w=2 => payout = 2 CORR ; all the incentive goes to CORR since mean=0