



Figure 1: Price and quantity determination as a function of order index. Blue shaded rectangles represent the area over which prices and quantities are uniformly randomized.

Starting price is defined by price of coin ( $p_{nom}$ ) pulled from CryptoCompare or flat price from database plus (minus) minimum spread value pulled from database for asks (bids):

$$\text{starting price} = p_0 = (1 \pm \frac{spread}{2}) \cdot p_{nom} \quad (1)$$

For each order the price is defined as:

$$price = p_0 \cdot (1 \pm \Delta pm) \quad (2)$$

$$\frac{i}{N_{orders}} \cdot depth < \Delta pm < \frac{i + 0.3}{N_{orders}} \cdot depth \quad (3)$$

Starting quantity value ( $qty_0$ ) is taken from database and should be bigger than minimum quantity possible on AMP server. For each order the quantity is defined as:

$$q_{0i} < qty < 1.3q_{0i} \quad (4)$$

$$q_{0i} = qty_0 \cdot (1 + \frac{i^2}{5}) \quad (5)$$