

EXAMPLE OF PROBABILITISTIC THINKING

HUGHES ECONOMICS – April 2021

THE SHARE PRICE OF TESLA (TSLA)

The share price of Tesla has rocketed in recent months to as high as \$900.40 from a 52 week low of \$134.76. Currently it is just under \$740. Below we examine possible share prices for Tesla in 6 months' time, allowing for corrections, further advances or status quo movements that are marginally up or down from \$740. We present 5 possibilities:

1. A major correction to \$500 or less or around a 33% drop (33-).
2. A less dramatic correction to \$650 or around a 15% drop (15-).
3. A significant 30%+ rise to \$950 or more (30+).
4. Around a 15% rise to \$850 (15+).
5. Marginal up/down moves around the current price of \$740 in the range \$690 - \$790 (Status Quo or SQ).

The price points used above allow us to calculate a "fair price" as of now after deriving the probabilities, but all calculations are only illustrative. Pairwise judgments and probabilities follow:

| Tesla Share Price | Pairwise Judgment | Compound Value | Probability | Percentage Prob |
|-------------------|-------------------|------------------------|----------------|-----------------|
| 33- or \$500 | 1.00 | 1.00 | $1/12 = 0.083$ | 8% |
| 30+ or \$950 | 1.00 | $1.00 \times 1 = 1.00$ | $1/12 = 0.083$ | 8% |
| 15- or \$650 | 2.00 | $1.00 \times 2 = 2.00$ | $2/12 = 0.166$ | 17% |
| 15+ or \$850 | 1.00 | $2.00 \times 1 = 2.00$ | $2/12 = 0.166$ | 17% |
| SQ or \$740 | 3.00 | $2.00 \times 3 = 6.00$ | $6/12 = 0.500$ | 50% |
| | | 12.00 | 1.000 | 100% |

Note that SQ is seen as 3 times more likely than either 15- or 15+. The smaller price change to \$850 or \$650 is seen as twice as likely as a larger change to \$950 or \$500.

Using the above price points and probabilities a current "fair price" for a 6-month horizon on the Tesla share price is \$740.83 which is around the current share price.

To avoid any charges of spurious accuracy, the distribution could be reported respectively as 10%, 10%, 15%, 15% and 50% with an EV of \$740 (if this accords more with the appraiser's degree of belief) since the pairwise values are rudimentary or tentative.

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