Figure 1: The graph shows the order fills for different values of $\Omega$, which parametrizes the market maker's level of ambiguity aversion. For example, when $\Omega$ is 0.4, a 0.001 share of the second Arrow-Debreu security is filled. The second Arrow-Debreu security pays \$1 to its holder if and only if the second state is realized at maturity.

### 5.2 Simulation B: Market Maker's Pivot Probability Distribution

In this subsection, we show how the market maker's pivot prior probabilistic belief affects the way our algorithm clears the market. Table 5 below shows the limit order book used for this subsection. Table 6 below shows the set of simulation parameters for both iterations.

| order # | limit quantity **b** | security # | bid price per share | payoff matrix state 1 | state 2 | state 3 | state 4 | state 5 | buy or sell |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.001 | 1 | 0.18 | 1 | 0 | 0 | 0 | 0 | buy |
| 2 | 0.001 | 2 | 0.18 | 0 | 1 | 0 | 0 | 0 | buy |
| 3 | 0.001 | 3 | 0.18 | 0 | 0 | 1 | 0 | 0 | buy |
| 4 | 0.001 | 4 | 0.18 | 0 | 0 | 0 | 1 | 0 | buy |
| 5 | 0.001 | 5 | 0.18 | 0 | 0 | 0 | 0 | 1 | buy |

Table 5 Sample Limit Order Book Used for Simulation B