SUSTAINABLE AND UNCHALLENGED ALGORITHMIC COLLUSION

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SUSTAINABLE AND UNCHALLENGED ALGORITHMIC COLLUSION

Hub and Spoke

1. Intentional *v* incidental.

2. Use of same algorithm.

3. Use of same provider.

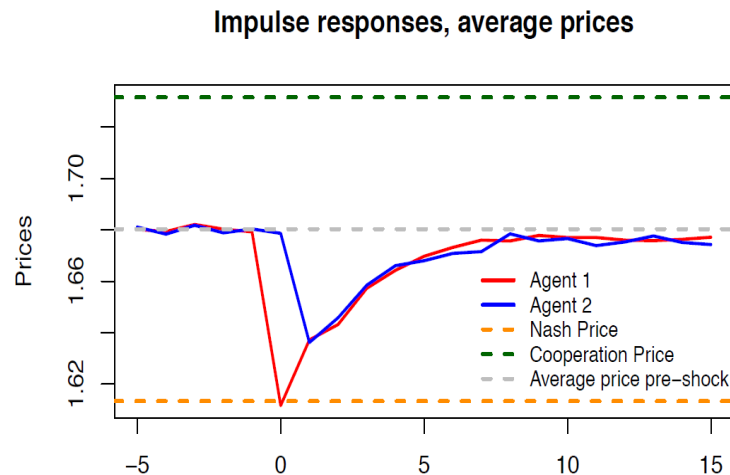4. Challenge – Identify a threshold of illegality - CMA, DOJ

Human **driven tacit collusion –**

1. Algorithmic interdependence (subject to market characteristics).

2. Communication as condition? 'coordination problem hard/impossible to solve'

3. Challenge – Identify a threshold of illegality -

     … rational reaction, observe and imitate, decode strategy, RPM,…

SUSTAINABLE AND UNCHALLENGED ALGORITHMIC TACIT COLLUSION

***Algorithm* driven tacit collusion –**

1. Avoid disruption - will not be used if uncontrolled.

2. Initial observations - Q-learning

Impulse responses, average prices

Source: Calvano, Calzolari, Denicolò and Pastorello 'Q-Learning to cooperate'

3. Challenge – Technology developments, undetected activity, illegality (?)

Paper available on SSRN:

Ariel Ezrachi & Maurice E. Stucke
'Sustainable and unchallenged algorithmic tacit collusion'