# Risk Pricing and the Nash Equilibrium 

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## The Prisoner’s Dilemma <br> Golden Balls



## In the Real World



## 3rd Party Data

Internet of Things

## Telematics

Fraud Models
Building Characteristics
Credit Scoring Crime Data/Models
Vehicle History Scoring License Plate Recognition Hurricane/Storm Models

## The Prisoner's Dilemma Risk Pricing

|  | No Data | Data |
| :---: | :---: | :---: |
|  | $\begin{gathered} \$ 1000 / \\ 1000 \end{gathered}$ | $\begin{gathered} \$ 840 / \\ 1240 \end{gathered}$ |
| No Data | $\begin{gathered} \$ 1000 / \\ 1000 \end{gathered}$ | $\begin{gathered} \$ 1000 / \\ 1000 \end{gathered}$ |
|  | $\begin{gathered} \$ 1000 / \\ 1000 \end{gathered}$ | $\begin{gathered} \$ 840 / \\ 1240 \end{gathered}$ |
| Data | $\begin{gathered} \$ 840 / \\ 1240 \end{gathered}$ | $\begin{gathered} \$ 840 / \\ 1240 \end{gathered}$ |

## Competitive Markets Should:

## * Decrease insured losses

* Decrease insurance expenses
* Increase availability of insurance


## Uninsured UW <br> Expense <br> Loss <br> Cost

## Risk Pricing (Data) Should:

Decrease insured

losses

Decrease insurance expenses
Increase availability of insurance

* Or, be uncostly.


## Case Studies:

UBI
Territory
Vehicle History Score
\& Loss/Violation
History

* Protection Class
* Decrease insured losses

Decrease insurance
expenses

* Increase availability of insurance
* Low Cost (or Free)


## The Prisoner's Dilemma <br> Golden Balls - A New Paradigm



