Comments on
“An Empirical Analysis of Indirect Network Effects in the Home Video Game Market”

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Two-sided markets and identification goal

- Consumers and software developers want to coordinate on a hardware platform

- Facts (Table 2): coordination successful!
  - Ranking of console sales, software availability the same
  - PlayStation2 > XBox > GameCube

- Coordination more because of software development costs or consumer demand for software variety?
  - Consumer demand: hardware sales $q_H$ as a function of software $q_S$
  - Software developers’ supply: $q_S$ as a function of $q_H$
Review of gold standard instruments solution

• Data on many independent markets
  – Separate titles for each market: Japan, US, Europe, etc.

• Demand shifter not in supply
  – Demographics: youth
  – Identify supply curve slope in hardware sales
  – Data: how $q_S$, $q_H$ separately vary across markets by youth
  – If $q_S$ does not increase a lot with youth, but $q_H$ does increase, then supply of $q_S$ \textbf{inelastic} in $q_H$
Review continued

- Supply shifter not in demand
  - Salaries for computer programmers (cost)
  - Data: how $q_S$, $q_H$ vary across markets by costs
  - If $q_H$ increases a lot with costs, $q_S$ not so much, then demand for $q_H$ elastic in $q_S$
Data challenges & solutions for Prieger & Hu

• Mainly data on US market
  – Consumers choose between three platforms

• Identification
  – Time series
    ∗ Differential rates of software deployment
  – Instruments
    ∗ Equivalent variable for Japan
    ∗ Motivation: shared costs, supply shifter
Use estimates for policy questions / counterfactuals

1. Full platform compatibility
   (a) No change in market shares
   (b) Time series of $q_H$ did not line up with high $q_S$?

2. Only PlayStation 2 games compatible with XBox, GameCube
   (a) Small share increase for XBox, GameCube

• Conclusion: among platforms, software titles not driving hardware sales differences
Suggestions

• Graphs of differential rates of software deployment

• Entry: why only three platforms?

• Compare Japan to US (have data)
  – Cost & demand shifters
  – Two observations, so case study more than statistics

• European countries and market size
  – Language localization is a fixed cost
  – Console demand has no such fixed component
  – Could estimate demand as a function of software
    ∗ Instrument for software: language size
Matching / networks idea: variety vs. coordination

- Firms do not want to enter perfectly competitive markets
  - Cannot recover sunk costs
  - Need differentiation

- I have been working on matching / networks game (non-video) estimation
  - If only measured outcome is degree of coordination
  - Conclude: coordination important
Matching / networks idea: variety vs. coordination

- Now, add a second measure, like genre variety
  - Consider software developer with new title, which platform to match to?
  - Already three basketball games on PS2, go to XBox
  - Can estimate relative importance of variety, coordination

- Assume no genre variety costs, estimate of consumer response

- More explicit measure of value of variety (within vs. across genres)
  - Data: how many firms on each platform in each genre?