

# Baseball cards and the Internet

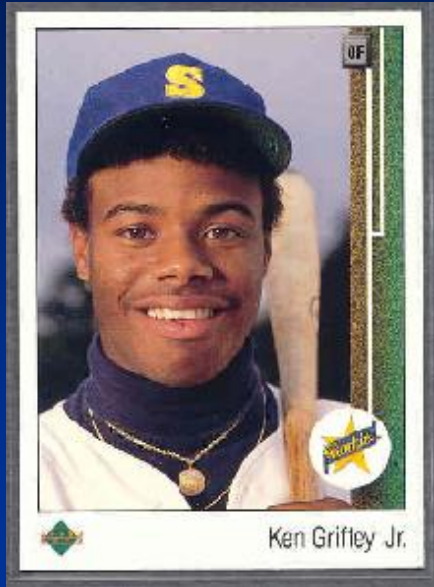
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Based on

Jin and Kato “Dividing Online and Offline”  
Review of Economic Studies July 2007.  
Jin and Kato “Price, Quality and Reputation”  
RAND Journal of Economics, Winter 2006.



- Card printing: once-for-all, limited quantity
- New cards: sold in sealed packs
- Used cards:
  - sold in singles
  - conditional on card type, the value of the card depends on card condition (center, edge, corner, surface)
  - professional grading at a fixed cost
- Used cards are traded in two markets:
  - retail stores or local card shows
  - online – ebay



1989 Upper Deck  
Ken Griffey Jr.

- Tradeoff between online and offline
  - Online market offers search cost savings
  - It is more difficult to observe the quality of ungraded cards on the Internet
- What happens when the Internet came?
  - How do people trade on the Internet?
  - How do buyers and sellers adapt to the new market?
  - How does the Internet reshape the traditional retail market, card grading and card printing?



# Theory implies ....

- Market segmentation



- Professional grading
  - Demand for grading increases after eBay took off
  - Quality distribution of the graded population shifts left
- Retail shrinkage?

# Our approach

- eBay market watch / Beckett price guide
- Field experiment
  - Buy the same cards from online and offline
  - Have them professionally graded
- Study changes in the graded population
  - Grading volume
  - Grade distribution
- Survey every retail store listed in yahoo



# eBay watch (Apr. – Dec. 2001)

- eBay sells graded and ungraded cards
- Graded cards account for 2/3 of eBay listings
- Ungraded price  $<$  graded price
- eBay price closely tracks the low price listed in the price guide
- Price (grade) is increasing and convex

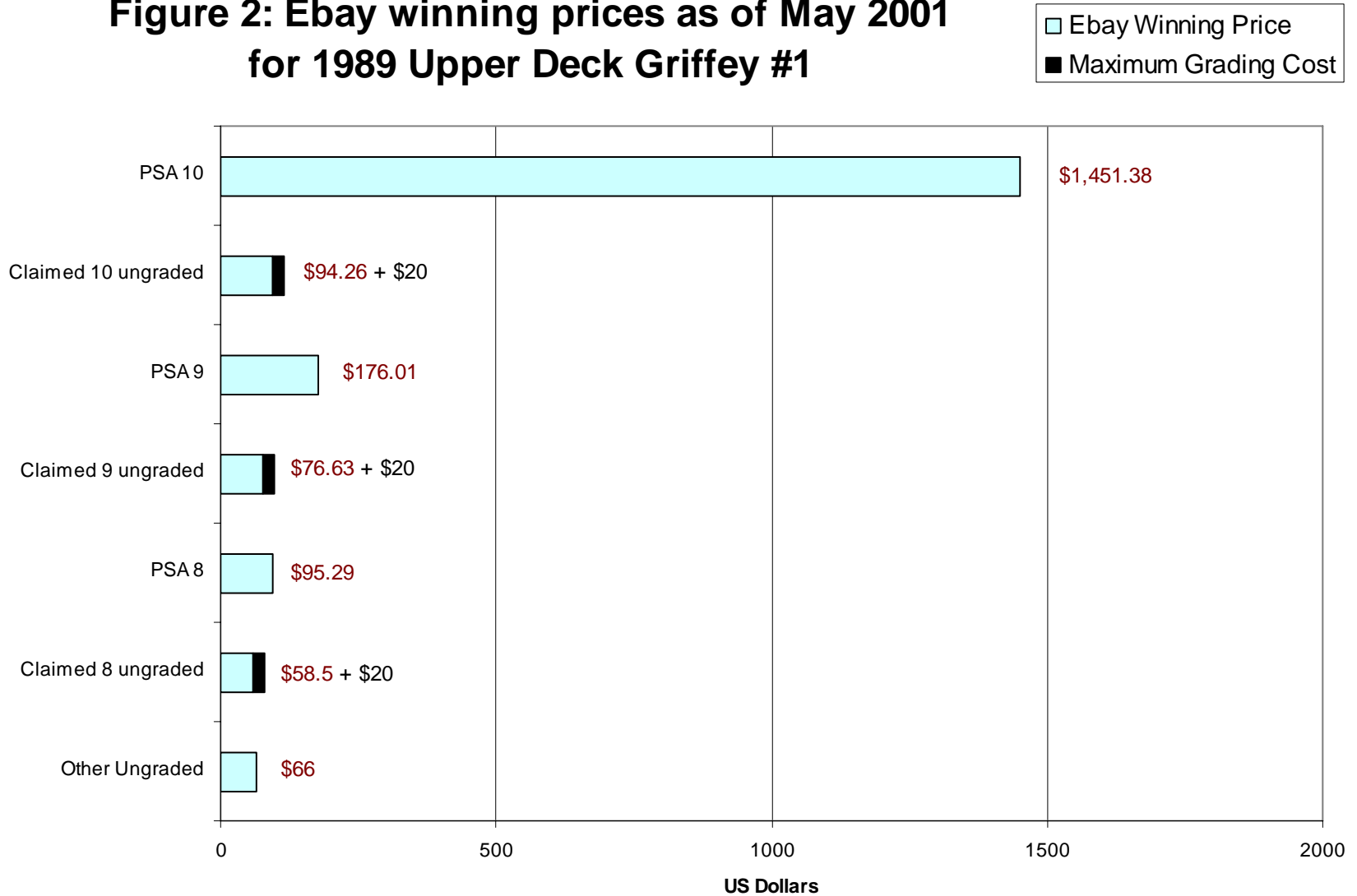


# eBay watch ... surprise!

- Sellers of ungraded cards often make quality claims that are too good to be true (e.g. gem mint)
- Ungraded cards with high claims are easier to sell and often sold at higher price
- Reputable sellers are more reluctant to make high claims



**Figure 2: Ebay winning prices as of May 2001  
for 1989 Upper Deck Griffey #1**





# Field Experiment

- Focused on five rookie cards
- Ungraded, collectible qualities only
- Off season: Dec. 9, 2001 – March 18, 2002
- Online
  - Rank listed auctions by seller claims
  - Bid on median-ranked and best-ranked cards every week
- Retail
  - 11 metropolitan areas
  - Buy all cards over collectible quality
- Send for professional grading (BGS) in one package



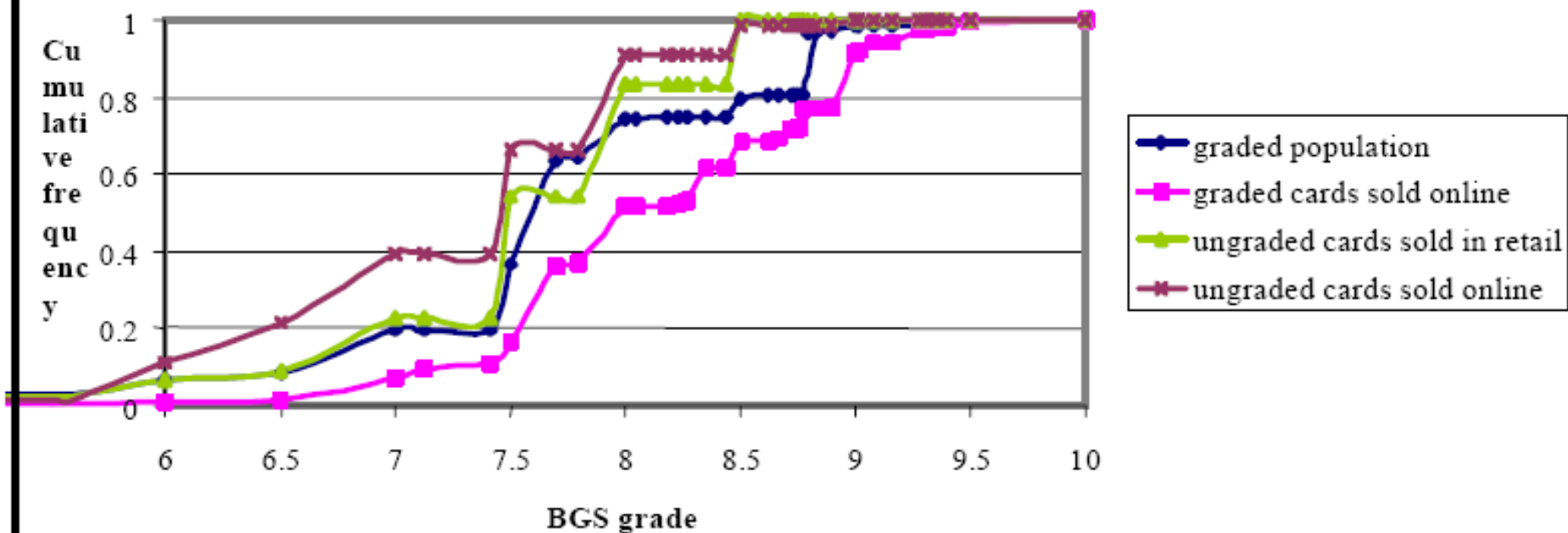
	Retail Sample	Online Sample	Difference
N	126	100	
N (authentic delivery)	122	89	
N (defaults & counterfeits)	4 (3%)	11 (11%)	-0.08**
AvgQuality (all)	7.35	6.53	0.82***
AvgQuality (delivered)	7.59	7.33	0.255***

\*\*  $p < 0.05$ ,

\*\*\*  $p < 0.01$ .

# Evidence of Market Segmentation

Figure 1: Grade distribution of graded and ungraded cards



	Online: high claims	Online: median claims	Difference
N	53	47	
N (authentic delivery)	44	45	
N (defaults & counterfeits)	9 (17%)	2 (4%)	0.13 **
Actual Quality	6.06	7.05	-0.99 **
Seller claim	9.21	8.39	0.82 ***
Actual Quality (delivered only)	7.30	7.37	-0.07
Seller Claim (delivered only)	9.12	8.41	0.71 ***

\*\* p<0.05,

\*\*\* p<0.01.

# Does eBay reputation work?

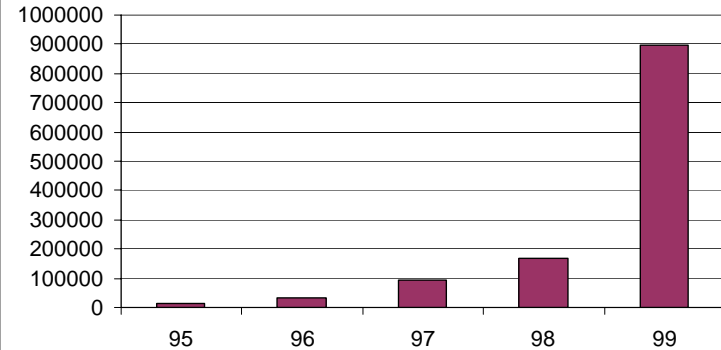
- Reputable sellers are less likely to make high claims, and less likely to default or send counterfeits
- Conditional on authentic delivery, reputable sellers don't imply better card quality
- We attribute the imperfection to two loopholes in eBay reputation system:
  - Universal rating
  - Costless switch of anonymous identity



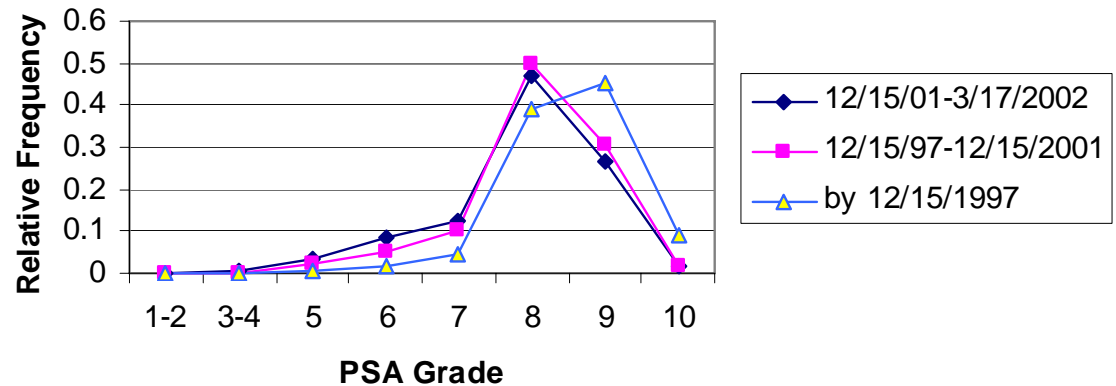
# Evidence on Professional Grading

- Dramatic increase in the population of graded cards
- The quality distribution of graded cards shifts left over time

Figure 7: The number of sports cards PSA graded by year

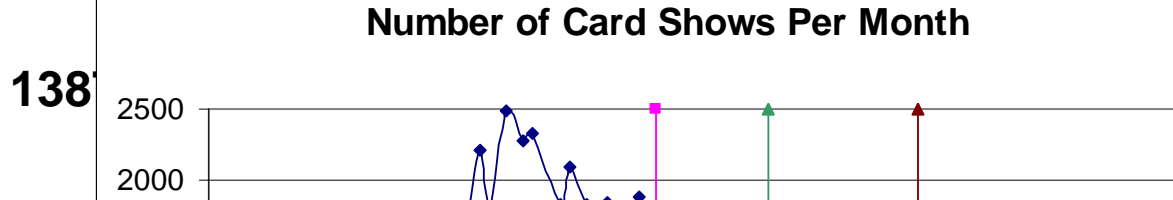


Distribution Shift of PSA Grades  
- 89 Upper Deck Griffey

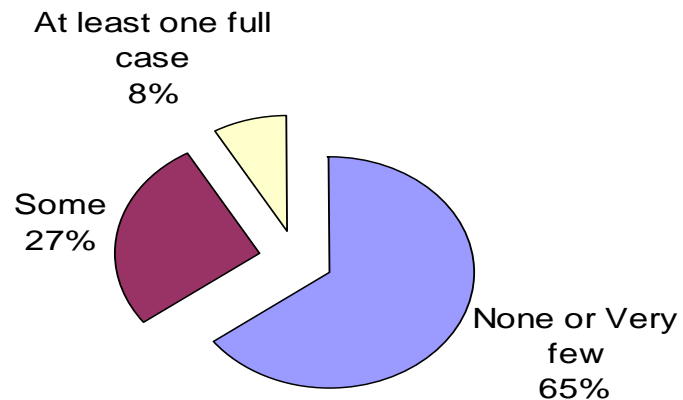


# Evidence on Retail Stores

- Many retail stores and card shows exit the market
- Retail stores on ungraded



**How much do the existing sports card stores deal with graded cards?**



# The rise of insert card (# per year)

1990	5
1991	8
1992	12
1993	7
1994	15
1995	5
1996	18
1997	33
1998	46
1999	110
2000	164
2001	724



# Conclusion

- Evidence consistent with the theory:
  - Market segmentation
  - Changes in professional grading
  - Retail shrinkage
  - Rise of insert card
- Baseball popularity cannot explain all the facts in a coherent way
- A new method of trade offers an opportunity for econ. agents to resort across market segments.
- Not only does this reshape the traditional marketplace, it also motivates changes in the supporting industries

