

# First Sale Doctrine and Secondary Markets

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# Secondary Markets

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- ▶ First Sale doctrine for copyrighted material has led to flourishing markets for used books, CDs and rental markets for Videos and DVDs.
- ▶ Increasing digitization of these works means
  - ▶ Marginal cost of creating a copy is zero.
  - ▶ Ability of a copyright owner to extract surplus from her work might diminish.
  - ▶ Absence of secondary market may promote piracy.
- ▶ As expected, this has led to an important public policy debate.



# Secondary markets: Allocation Efficiency

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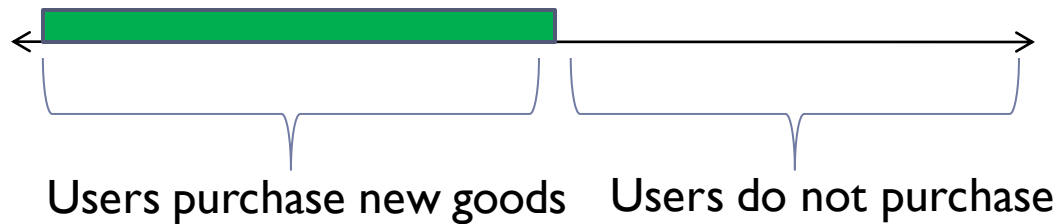
- ▶ An important role of secondary markets is they induce price discrimination improving consumer welfare.
- ▶ Users are heterogeneous in their willingness to pay and have different preferences for quality (used vs. new) and patience (want it 'right now' or wait for it).
- ▶ Used markets allow customers to sort themselves. Some users can get a degraded version at a lower price because of the secondary markets (these users wouldn't have purchased the new copy anyway).
- ▶ However, it also encourages some users (who would have purchased new copies) to wait and buy the used copies.



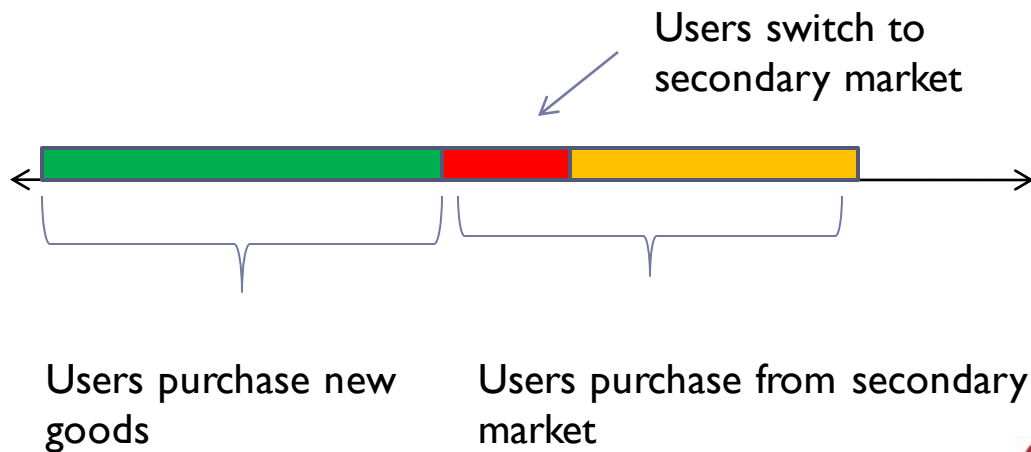
# Marginal Users

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- ▶ Without secondary market.



- ▶ With Secondary markets



# Producer Surplus

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- ▶ **The sellers lose some profits.**
  - ▶ Used markets cannibalize the new markets somewhat.
  - ▶ Some of the lost profits can be recouped by increasing prices for the new goods. However, in most cases, the sellers lose profits in the presence of secondary markets.
  - ▶ The extent of “marginal users” determines the level of profit loss. Number of marginal users depends on how much quality degradation occurs.
    - ▶ What about digital goods? Almost no quality degradation. Would the cannibalization be too high?
    - ▶ A temporal delay may be equivalent to quality degradation.
    - ▶ Frequent updates and new additions increase the relative quality difference reducing cannibalization.
    - ▶ Leasing, renting, buy-backs, versioning are some other ways to limit the impact of secondary markets.



# Consumer Surplus

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- ▶ Consumers are better-off in the presence of the secondary markets.
  - ▶ Many have access to goods they otherwise would not.
  - ▶ However, consumers who do not trade in the secondary markets lose due to the increased prices of new goods.
- ▶ Total Welfare depends on the combination of the two. Usually the secondary markets increase the total welfare.
- ▶ However, the extent of welfare gains (or losses) is inherently an empirical question.



# Estimates of Welfare change due to Amazon Used markets

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- ▶ Ghose, Smith and Telang (2006) and Smith and Telang (2007) examine the welfare impact due to Amazon used books, CDs and DVD marketplace.
  - ▶ Cannibalization effect is small for books. Only 15% of the total used book sales is due to the “marginal user”.
  - ▶ Amazon sold close to 30 million used books in 2002. Our estimates suggest about 4.5 million of them were due to the cannibalization. The rest (24.5 million) were from the users who would not have bought new books.
  - ▶ We estimate consumer surplus gains to the order of \$70 million, Amazon profit gains to the order of \$64 million, and publisher losses to the order of \$32 million.
- ▶ Interestingly, for CDs and DVDs, we find a large cannibalization effect.
  - ▶ A used book degrades much more than a used CD.

# But what about second order effects?

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- ▶ What if the producers degrade quality in the presence of secondary markets.
  - ▶ Less of a worry for copyrighted material (?).
  - ▶ More worrisome in durable goods market.
- ▶ What if the producers decrease supply (or stop producing altogether) in the presence of secondary markets.
  - ▶ Little empirical evidence to suggest that is happening for books, music or movies (so far).
- ▶ But the secondary markets may open other revenue streams.
  - ▶ If books are more accessible, authors can make money by speaking engagements. Music artists already make a significant amount of money via concerts (rather than actual CD sales).
  - ▶ It can lead to significant growth in other industry segments (presumably the iPod sales may not be as high in the absence of low prices for even very popular songs). Or a secondary market for eBooks can generate significant growth and innovation in the book reader market.
  - ▶ The challenge then is to allocate this surplus.





# Key Takeaway

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- ▶ Too many moving parts when it comes to analyzing the role of first sale doctrine (which promotes the secondary market place).
- ▶ Besides direct effects, the indirect effects can be substantially large.
- ▶ Each industry may exhibit different behavior based on the cost and quality and may require different treatment.
- ▶ Reasonable empirical estimates should be the starting point for any serious discussion.

