

# High-Tech Antitrust

## Carl Shapiro

- Mergers and Acquisitions
  - Oracle/PeopleSoft Merger
  - Sirius/XM Radio Merger?
- High-Tech Rules of the Road
  - Monopoly O.K., Monopolization NOT
- Microsoft Case: U.S. & E.U. Versions
- AMD vs. Intel

# Merger and Acquisitions

- Horizontal, Vertical, Complementary
- Horizontal Merger Guidelines
  - [www.ftc.gov/bc/docs/horizmer.htm](http://www.ftc.gov/bc/docs/horizmer.htm)
- No Immunity for Software or High-Technology Industries
  - Microsoft Money/Intuit Quicken
  - Worldcom/Sprint as Internet Backbone Providers
  - DirecTV/EchoStar in DBS Services

# Horizontal Merger Analysis

- Define the Relevant Market
  - Looking for Reasonable Substitutes
- Calculate Market Shares
  - HHI Index = Sum of Squares of Market Shares
  - $HHI > 1800$  is “Highly Concentrated”
  - Look at Increase in HHI
- Assess Conditions of Entry
- Evaluate Competition Effects/Efficiencies
- Customer Reactions?!

# Software Merger Cases

- Borland (Paradox) and Ashton-Tate (dBase)
  - Fix to License FoxPro; Microsoft Access
- Intuit Quicken and Microsoft Money
  - “Godzilla” and Lame License to Novell
- Computer Associates and Legent
- Computer Associates and Platinum
  - Some Divestitures Required
- Adobe and Macromedia

# Oracle/PeopleSoft Merger

- Hostile Takeover 2003-2004
- Major Antitrust Case, DOJ vs. Oracle
- Relevant Markets Alleged by DOJ
  - Financial Mgt. Systems; HR Systems
- Industry Verticals & Price Discrimination
- SAP As Chief Rival; DOJ: 3 → 2 Merger
- Oracle Plays the Microsoft Card
- Impact on Customers?!

# Sirius/XM Satellite Radio Merger

- Direct Rivals in Satellite Radio
- Both Growing But Losing Money
- What is the Relevant Market?
  - Satellite vs. Terrestrial (and HD) Radio?
  - iPods? Mobile Phone Streaming?
- Claim Large Cost Savings
- Impact on Consumers?

# Monopoly Power

- Monopolists Have Extra Legal Duties
- Which Firms Have a “Monopoly”?
  - Power to Control Price or Exclude Competition
- Examples
  - Microsoft Windows (Easy), Microsoft Office?
  - Intel Pentium? Intel Itanium?
  - IBM z/OS (Switching Costs)?
  - eBay Auctions? Adobe PhotoShop?
  - Google Search?

# Monopoly Power is Legal

- Gaining a Monopoly by Competing on the Merits is Perfectly Legal, Pro-Competitive
  - Longstanding Precedent in U.S.
- Pricing at Monopoly Levels is Legal
  - Unless Price Regulations Apply
- Price Discrimination is Generally Legal
  - Even for a Monopolist
- True Even if Monopoly is Long-Lived



# Monopolization

- But “Monopolizing” is Illegal
  - Acquiring or Maintaining Monopoly By Means Other than Competition on the Merits
- Exclusive Dealing
  - Microsoft’s Contracts with Computer OEMs
  - DirecTV’s Arrangements with Large Retailers?
- Leveraging One Monopoly Into Two: Tying
  - IBM Software Bundles? Software Suites?
  - Monopolization of the Browser?

# Refusal to Deal?

- Does Monopolist Have a Duty to Deal with Rivals Who Want to Compete?
  - Does Microsoft Have a Duty to Disclose APIs to Rival Applications Software Developers?
  - Does Intel Have Duty to License the P6 Bus to Rival Chipset Maker Via?
  - Can Local Telco Deny Rivals DSL Lines?
- General Principle: No General Duty, Except Perhaps After a Course of Dealing is Started
  - *Aspen Ski Case*; *Kodak Case*; *Trinko Case*

# Microsoft Antitrust Case: Government Allegations

- Monopolization of the Market for “Intel-Compatible PC Operating Systems”
  - Microsoft Has a Monopoly
  - Microsoft Maintained That Monopoly Through a Variety of Anti-Competitive Tactics
- Tying the Browser to the Operating System
- Attempted Monopolization of Browsers

# Microsoft's Monopoly

- No Good Demand Substitutes for Windows
  - Server O/S: Far More Expensive
  - Non-Intel Compatible O/S: Switching Costs
  - Information Appliances: Lack Functionality
  - Network Computers: Significant Shortcomings
  - Server-Based Applications: Not Here Yet
  - Middleware: Still Needs as Operating System
- Supply Responses
  - Applications Barrier to Entry is Critical

# Microsoft Fears Circa 1996:

- Bill Gates: Internet Tidal Wave (GX20)
  - “A new competitor ‘born’ on the Internet is Netscape. Their browser is dominant, with 70% usage share, allowing them to determine which network extensions will catch on. They are pursuing a multi-platform strategy where they move the key API into the client to commoditize the underlying operating system.” (p. 4)
  - “One scary possibility being discussed by Internet fans is whether they should get together and create something far less expensive than a PC which is powerful enough for Web browsing.” (p. 4)

# The Middleware Threats

- Microsoft Feared Cross-Platform Middleware
  - “Microsoft focused its antipathy on two incarnations of middleware that, working together, had the potential to weaken the applications barrier severely... These were Netscape’s Web Browser and Sun’s implementation of the Java technologies.” Findings of Fact, ¶68.

# MS Response to Browser Threat

- Attempt in 1995 to Induce Netscape to Cease Competing, Become Preferred ISV
  - Use of API Disclosure as Carrot
- Withholding Crucial Technical Information
  - Remote Network Access API (Findings, ¶90)
  - Scripting Tool (Findings, ¶92)
- Using Monopoly Power to Try to Eliminate a Threat -- Monopolization

# Campaign Against Netscape

- Microsoft View That IE Could Not Win Browser War on the Merits
  - Decision to Use Windows to Win War
  - Nothing Wrong with Improving IE
  - Debate About “Predatory Pricing” of IE
  - Big Debate About Integrating IE and Windows
- Maintaining Barrier to Entry Was Key:
  - “This investment was only profitable to the extent that it protected the applications barrier to entry. Findings of Fact, ¶141.



# Microsoft's Strategy: OEMs

- Denying Navigator Key Distribution
  - OEMs and IAPs as Important Channels
- Binding Internet Explorer to Windows
  - Complex and Controversial (p. 76-98)
- Contractual Restrictions on OEMs (p. 98)
  - Pressure on OEMs (Compaq) to Promote IE
- MS Strategy Effective with OEMs
  - Navigator “Exiled” From Crucial OEM Channel

# Internet Access Providers

- Exclusion of Navigator From IAP Channel
  - Microsoft Believed IAPs Would Pick Navigator if Given a Choice (Findings, ¶243)
  - Three Tactics: (1) Microsoft Featured IAPs Who Do Not Promote NN; (2) Online Service Folder; (3) Financial Incentives to Convert Navigator Users to Internet Explorer
- Exclusion Was Effective (p. 153-155)
- Plus MS Strategy w/ ICPs (p. 155-168)

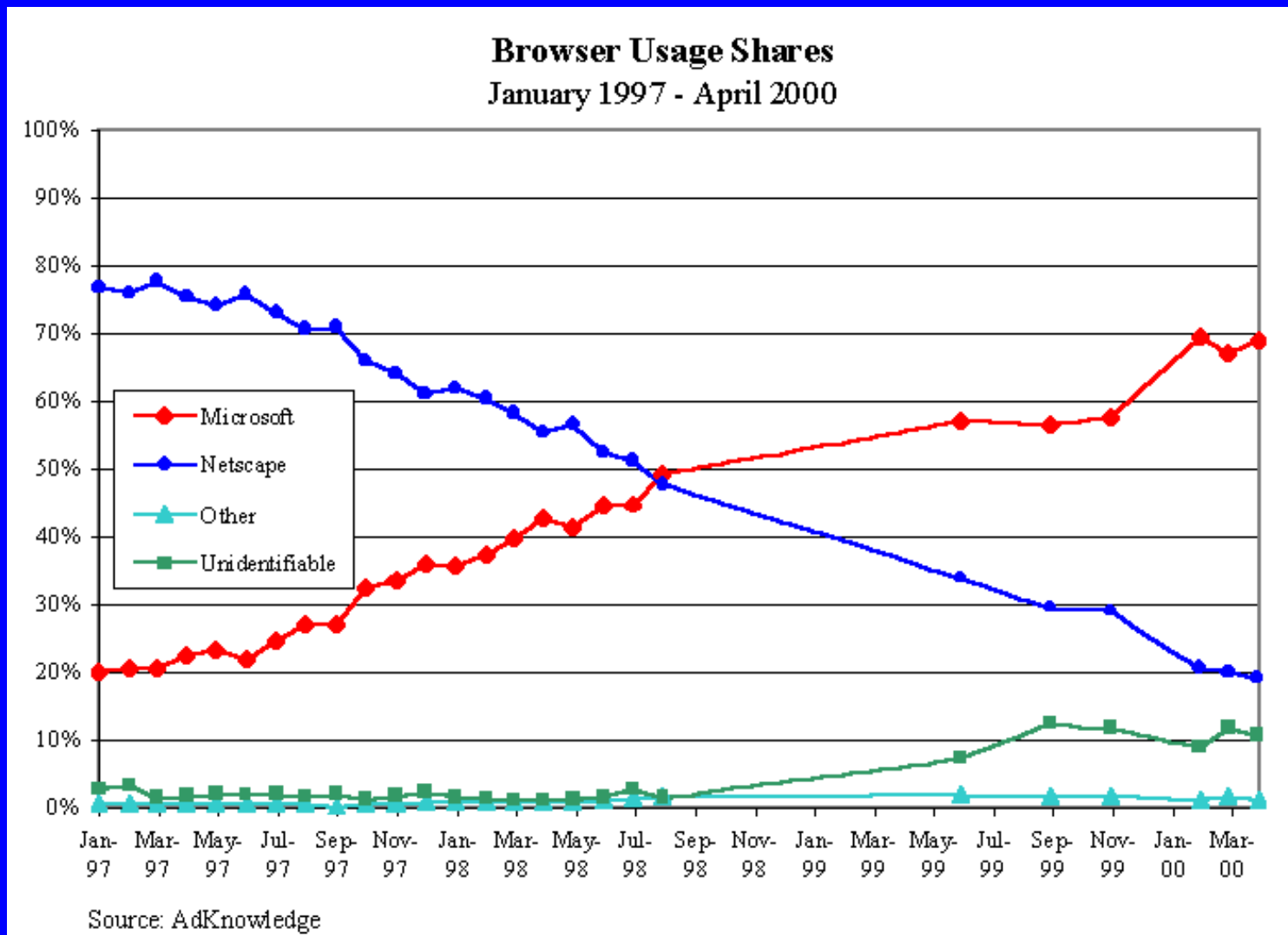
# Independent Software Vendors

- Direct Incentives to Complement Indirect Incentives Induced Through Browser Usage
- First-Wave Agreements with ISVs
  - Time-to-Market Important to ISVs
  - Preferential Access to Win98 and Win NT Info
  - ISV Agrees to Use IE as Default Browser
  - ISV Agrees to Use Microsoft HTML Help, Which Requires IE to Access

# Microsoft Dealings with Apple

- Classic Example of Abuse of Monopoly
- Netscape Was Default Browser for Apple
- Gates Priority: Apple to Shift to IE
- Threat to Cease Supporting Office for Mac
  - “The threat to cancel Mac Office 97 is certainly the strongest bargaining point we have, as doing so will do a great deal of harm to Apple immediately.” Findings of Fact ¶346
- Apple Bundles IE with Macintosh
  - No Desktop Placement for Navigator

# Browser Usage Shares



# Microsoft Response to Java Threat

- Cross-Platform Java Supported Portability
  - “Microsoft therefore became interested in maximizing the difficulty with which applications written in Java could be ported from Windows to other platforms, and visa versa.” Findings of Fact, ¶386
- Netscape Distributed Sun Java w/ Navigator
- Microsoft 1996 Agreement with Sun
  - Microsoft to Distribute Sun’s Java

# Microsoft Response to Java

- Microsoft Developed Methods for Enabling Calls to “Native” Windows Code That Made Porting More Difficult
  - “Kill cross-platform Java by grow[ing] the polluted Java Market.” GX259
  - “incompatibility was the intended result of Microsoft’s efforts.” Findings of Fact ¶390
- Microsoft Violated Agreement with Sun
  - Microsoft Practices Found to be Deceptive

# MS Conduct: Pro/Anti-Competitive

## PRO

- Built Windows Position
- Saw Browser as Key
- Built IE, Gave Away
- Improved IE
- Added IE to Windows
- Developed Own Java

## ANTI

- Exclusives vs. Netscape
- Tactics vs. Apple, Intel
- Prevented Removal
- Built in Incompatibility
- Deceived ISVs



# Microsoft Appeals Court Decision

- Monopoly Maintenance Case Upheld
  - Repeated Antitrust Violations Found
- Tying Case Sent Back for Re-Trial
  - Dropped by Government
  - Big Unresolved Question: Integration/Features or Tying Separate Product to O/S?
- Breakup Order Vacated
  - Remanded to District Court for Remedy
- Judge Jackson Removed From Case

# Antitrust Principles

- Nothing Wrong with Aggressive Pricing
  - Including Giving Away Browsers
- Nothing Wrong with Innovation
  - Including Integrating New Features into O/S
- Violations Involve Anti-Consumer Conduct
  - Contractual and Technical Restrictions on OEMs, ISVs; Dealing with Apple, Intel
  - Deception Regarding Java

# Microsoft Settlement and Remedy

- Prohibited Conduct
  - Microsoft Cannot Repeat Proven Violations
  - Permit OEMs to Remove “Middleware”
- Obligations on Microsoft
  - Disclosure of APIs, Communications Protocols
- Enforcement by “Technical Committee”
- Tunney Act Hearing; Litigating States
  - Victory by Microsoft, Upheld on Appeal

# Microsoft EU Case

- EU Imposes Big Fine, Proposes Remedy
  - Microsoft Appeal
- Microsoft Tying of Media Player
  - Remedy: Offer Unbundled Version
  - Two Products? Software Design Issues?
- Microsoft Leveraging to Server O/S
  - Remedy: Disclosure of Interface Information
  - Intellectual Property Issues
- Current Status: MS Appeal; Remedy Fight

# VMware vs. Microsoft

- VMware Virtual Machine Software
  - Strategic Threat at Bottom Layer?
- Steve Balmer:
  - “Our view is that virtualization is something that should be built into the operating system.”
- Microsoft Restrictions on Server Virtual Machine Mobility
- Proprietary APIs Between Longhorn and Microsoft’s Hypervisor

# AMD Complaint vs. Intel

- AMD Alleges Monopolization by Intel
  - Market for x86 Microprocessors
- Focus on Intel Dealings with OEMs
  - “Exclusionary Rebates” & “Loyalty Rebates”
  - “Volume Discounts” & “Design Wins”
  - “Interference with Product Launches”
- Bundling w/ Chipsets, Motherboards
- Industry Standards That Disadvantage AMD

# AMD's Example (§61-62)

- OEM Needs 100 CPUs, Price is \$100/Unit
- Intel Has Lock on 60 Units (Prior Models)
- Intel 10% Discount if OEMs Buys 90+
  - Buying 90 → \$8100, Cost of Last 30 = \$2100
- So AMD Cannot Charge No More than \$70
- AMD's Discount is Three Times Intel's
- Intel's Advantage & Large Share Persist?
- Competition or Exclusion?!

# Harm to Consumers?

- Consumer Harm Hard to See So Far
- AMD Gaining Strength Recently
  - AMD Claims Technological Leadership
  - AMD Investing in New Fab Capacity
  - AMD Producing at Capacity
- Future Consumer Harm?
  - AMD Exit Implausible
  - AMD Weakening – Result of Competition?
  - AMD Future Capacity Expansions?