



History of Computing – Oct. 23, 2006

# Antitrust & Computing

Stephen M. Maurer  
Goldman School of Public Policy

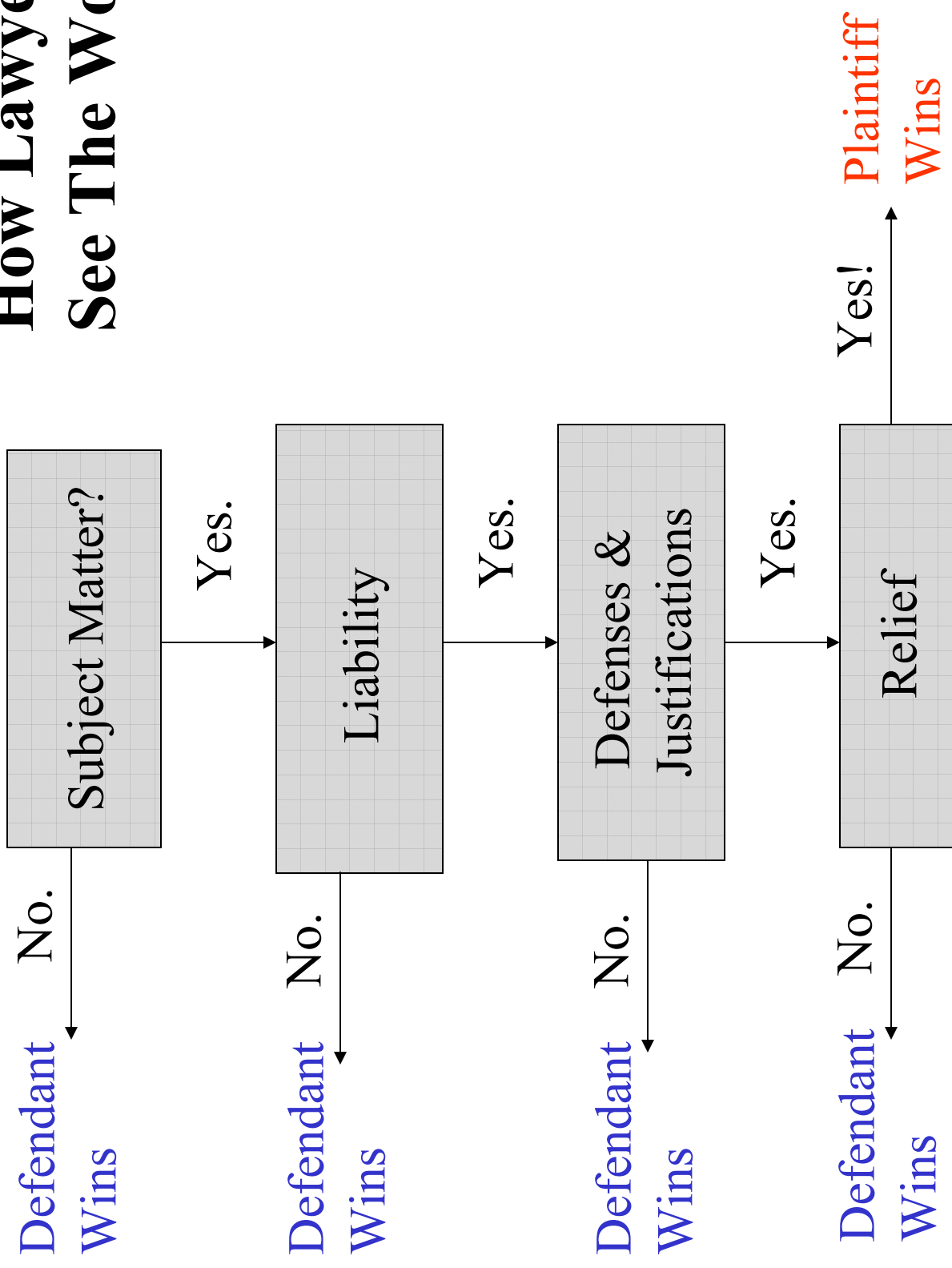
# Introduction

Why Legal History?  
The Problem of Narrative  
Why Students Should Care

# Outline

How Lawyers See the World  
Roots of Antitrust Law  
Antitrust for the Information Economy  
IBM, Microsoft I, II, III, IV ...

# How Lawyers See The World



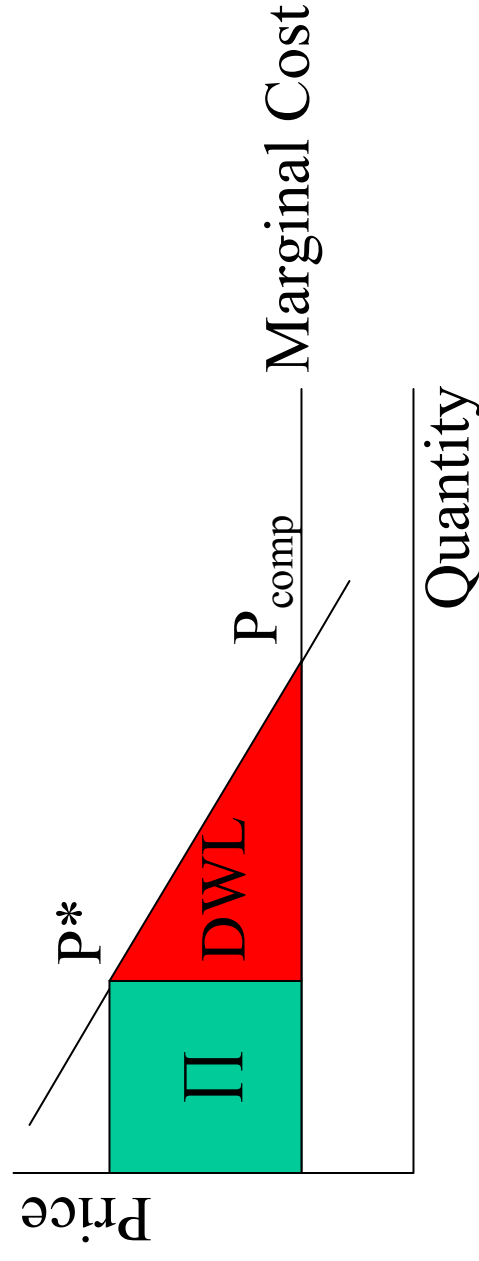
**How Lawyers  
See The World,  
*ctd.* ...**

**Common Law & Precedent**

# Roots of Antitrust Law

## 1623: Statute of Monopolies

### Why We Dislike Monopoly



**IP vs. Monopoly**

# Roots of Antitrust Law

## 1890: The Sherman Act. Populism vs. Microeconomics

“If we will not endure a king as a political power we should not endure a king over production, transportation, and sale of any of the necessities of life.”

-- John Sherman

“Power that controls the economy should be in the hands of elected representatives of the people, not in the hands of an industrial oligarchy.”

-- William O. Douglas

# Roots of Antitrust Law

## 1890: The Sherman Act, *ctd.*

“Every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several States, or with foreign nations, is declared to be illegal.”  
15 USC § 1.

“Every person who shall monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several States, or with foreign nations, shall be deemed guilty of a felony...  
15 USC § 2.



# Roots of Antitrust Law

1911: *The Standard Oil Case*

Rule of Reason

*Per Se* Rules

1911 - ? : Rules for the Old Economy

1930s: DOJ and IBM/Remington  
Leasing Collusion.

# Roots of Antitrust Law

- 1940s: The New Deal attack on patents. **IP vs. Antitrust**
- 1950s: DOJ and Opening The Card Business, Aftermarkets, Patents.

## Roots of Antitrust Law

1960s: Are Monopolists Different?

Standards

New *Per Se* Rules?

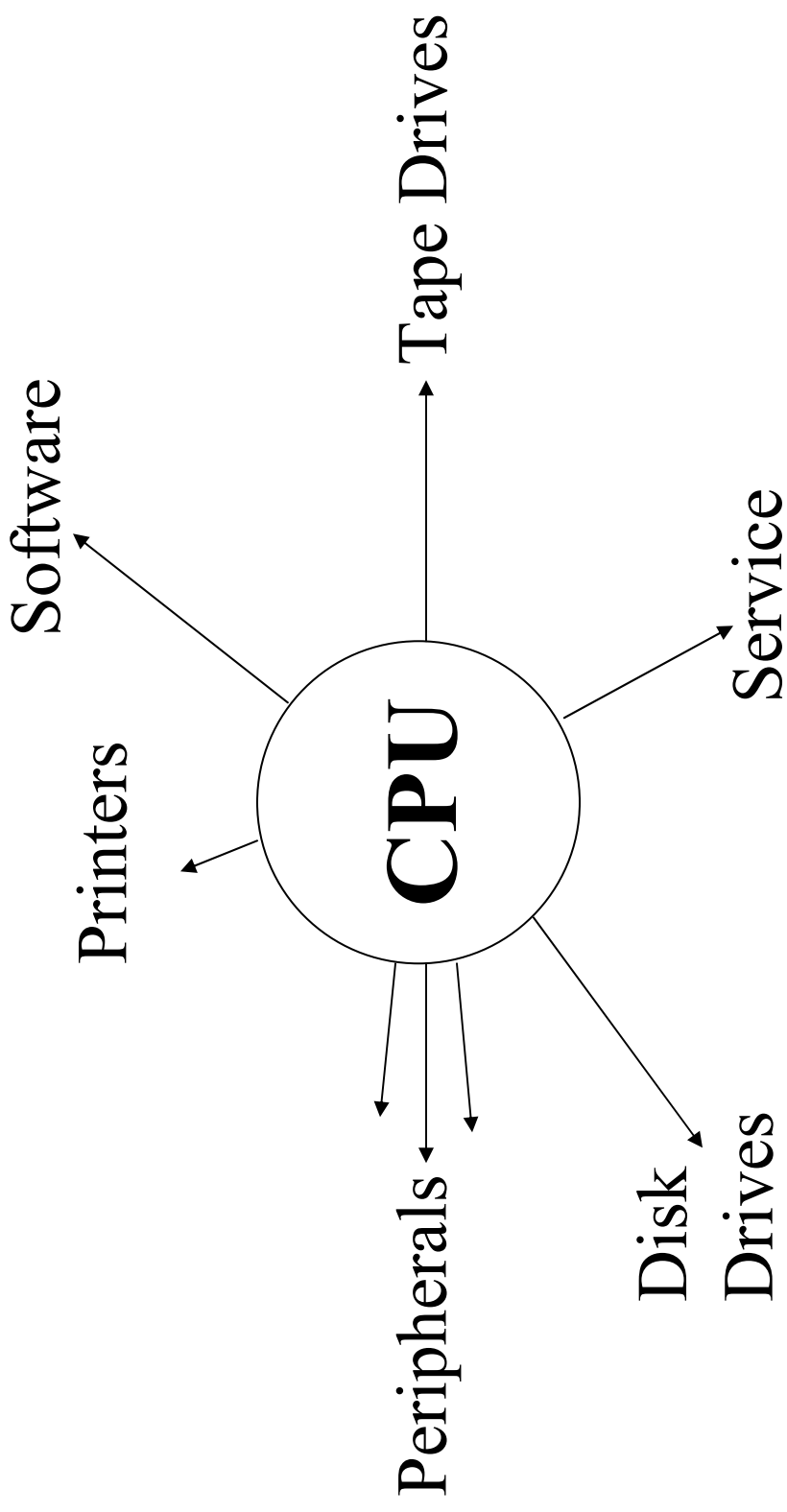
1969 - ? Rules for the Information

Economy

IBM, Microsoft I,

II, III, *etc.* <sup>11</sup>

# IBM



# IBM

- 1964: IBM 360 Released**
- 1967: Competing Tape Drives Gain Market Share**
- 1970: IBM Task Force**
  - IBM 370 Launched**
  - Repackaged Disk Controller**
  - IBM Moves Out of Tape Drives**
  - Price Cuts**

# IBM

- 1971 Long Term Leases**
  - **25-30% Cuts in Exchange for Lock-In**
  - **No Cost to IBM**
  
- 1972 SMASH Program**
  - **Price Below Competitors' Cost**
  - **Force Redesigns**

# IBM

Was IBM a rational monopolist?  
A Competitive Sector is Good for Profits  
The Toehold Problem and Financing



## **The Lawsuit:**

- 1969 Complaint (a political lawsuit?)**
- 1975 Trial Starts (Liability Phase)**
- 1982 Trial Ends (Projected)**
- 1984 Judgment (Projected)**
- ???? Damages Phase**
- ???? Appeals End**



# IBM

Was Lipsky Right?

Relief

Damages

Fines

Injunction

Structural Relief

Legal Signaling

Criminal Penalties

# IBM

Is Antitrust Possible?

Transaction Costs vs. Market Responses  
Delay

Changing Laws

A Changing Market

Innovation Policy vs. Antitrust

Is IBM Irreplaceable?

# Microsoft I & II

## Microsoft I (1994)

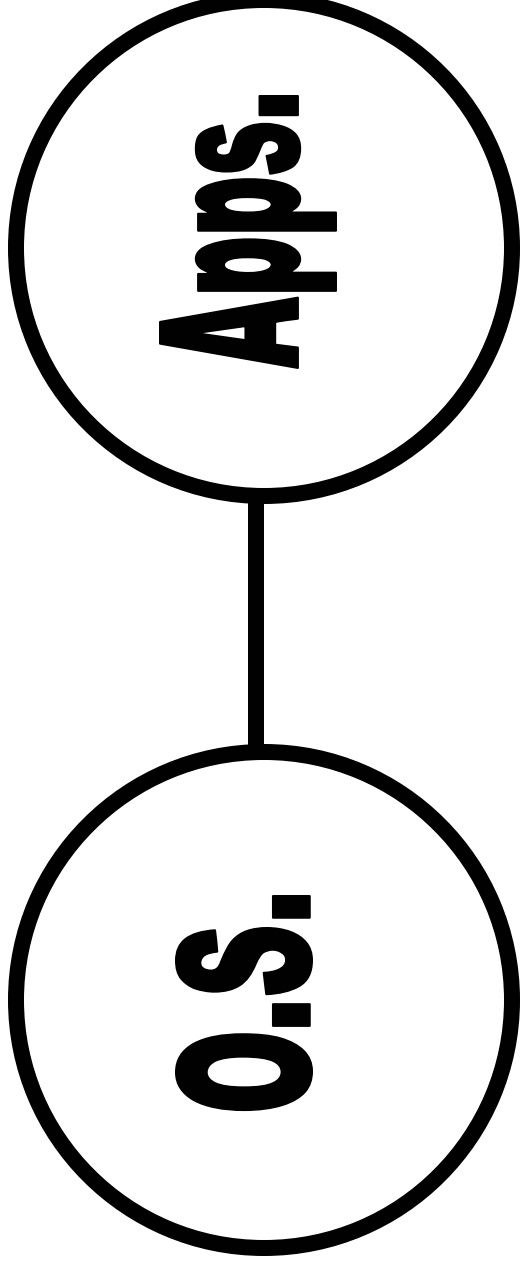
**-Maintaining a monopoly through licensing and software developer agreements.**

**- Consent Decree**

## Microsoft II (1998)

**- Contempt Action**

# Microsoft III



# Microsoft III

## Theories

Exclusive Dealing [§1]

Monopolizing PC Market [§2]

Attempted Monopoly of Browsers [§2]

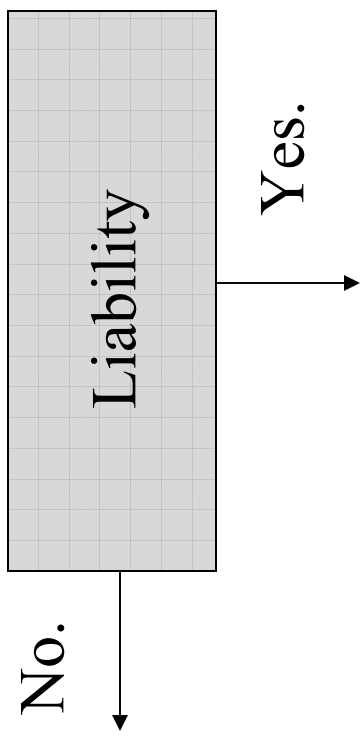
Tying Windows to Explorer [§1]

# Microsoft III/ Theory 1

## Theory 1: Monopolizing PC Market [§2]

# Microsoft III/

## Theory 1



## Monopolization of the PC Market

### Elements

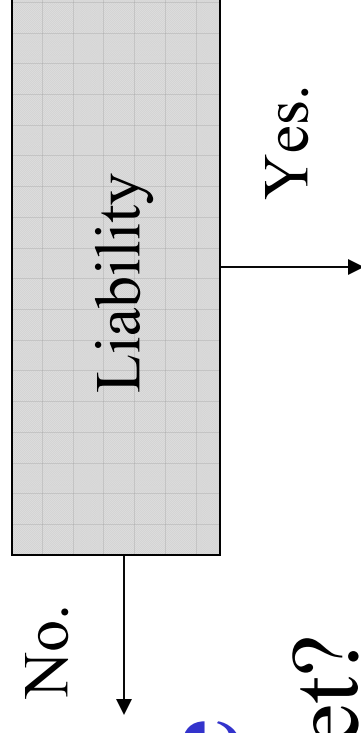
1) Market Power

+

2) Anticompetitive Conduct

# Microsoft III/ Theory 1

**Monopolization:**  
Market Power



Defining Market Share

What is the Market?

Defining **Barriers to Entry**

The Applications Barrier

Alternative Argument:

Microsoft ignores competitors' prices.



# Microsoft III/ Theory 1

## Preamble: Network Externalities

I care what you use...

Commons standards benefit  
consumers.

The Entrenchment Issue

The Externalities Issue

# Microsoft III/ Theory 1

## Network Externalities: The Entrenchment Issue

“We decide this case against a backdrop of significant debate among academics and practitioners over the extent to which ‘old economy’ §2 monopolization doctrines should apply to firms competing in dynamic technological markets characterized by network effects.” [11]

# Microsoft III/ Theory 1

The Entrenchment Issue, *ctd.* ...

“Indeed, there is some suggestion that the economic consequences of network effects and technological dynamism act to offset one another, thereby making it difficult to formulate categorical antitrust rules absent a particularized analysis of a given market”

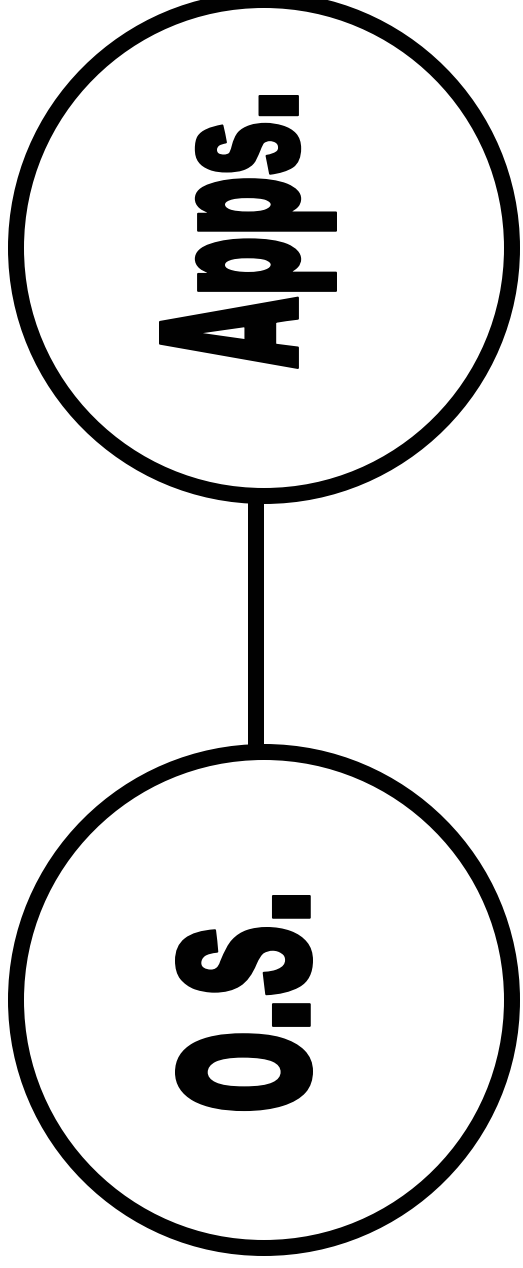
Schumpeter’s Ghost...

# Microsoft III/ Theory 1

## The Externalities Issue

Does the Court “Get It”???

# Microsoft III/ Theory 1



# Anticompetitive Conduct

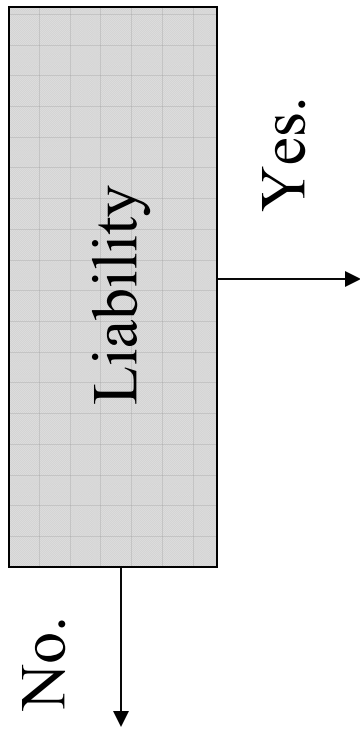
# Microsoft III/

## Theory 1

**Monopolization**

Anticompetitive

Conduct:



- 1.** OEMs and Control of the Desktop  
What's the Alternative?

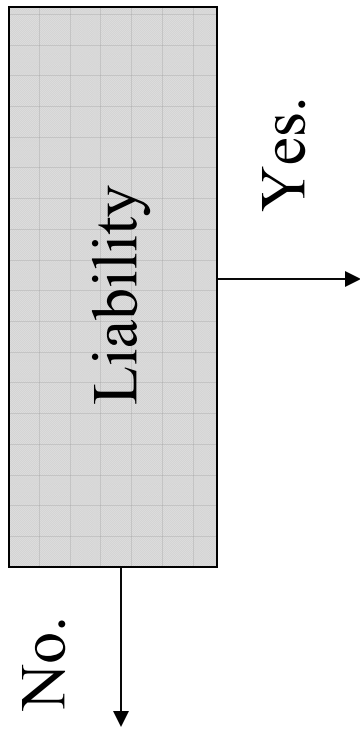
# Microsoft III/

## Theory 1

**Monopolization**

Anticompetitive

Conduct:



**2.**

Integrating IE and Windows

Taking IE Off Add/Remove List

Commingle Files

Overriding User Choice of Browser

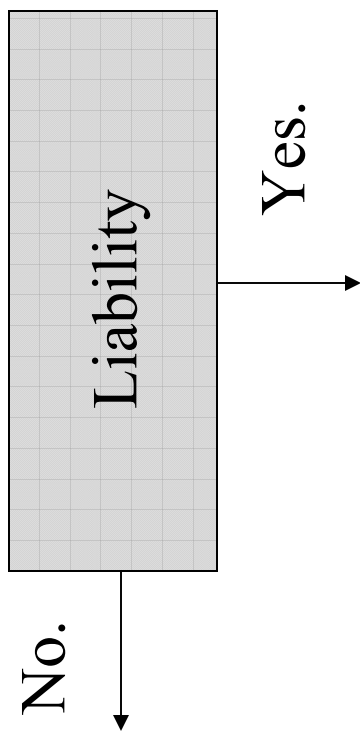
# Microsoft III/

## Theory 1

**Monopolization**

Anticompetitive

Conduct:



**3.**

Agreements With Internet Access

Providers

License Restrictions

Free Tool Kits Are OK



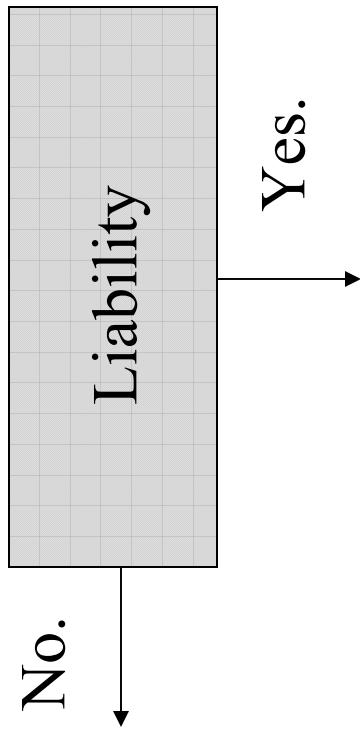
# Microsoft III/

## Theory 1

**Monopolization**

Anticompetitive

Conduct:



**4.**

Agreements With Independent

Software Providers

Browser Defaults

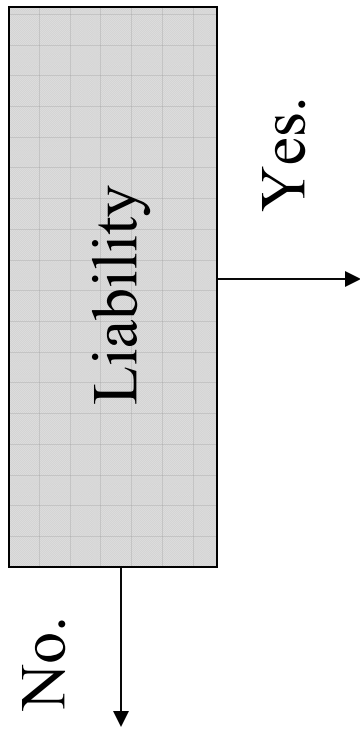
# Microsoft III/

## Theory 1

**Monopolization**

**Anticompetitive**

**Conduct:**



**5.**

**Threatening Apple**

**Courts *Understand* Threats . . .**

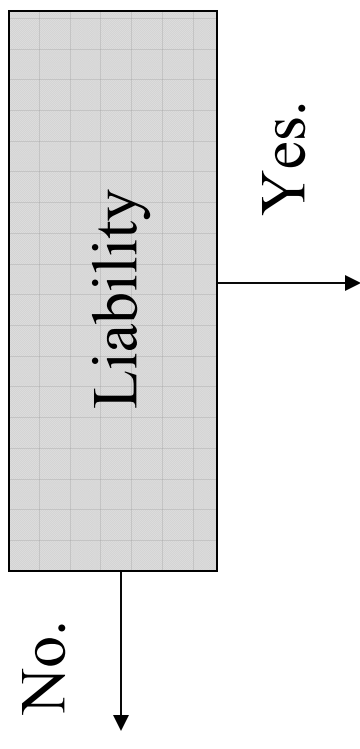
# Microsoft III/

## Monopolization

## Anticompetitive

## Conduct:

## Theory 1



## 6.

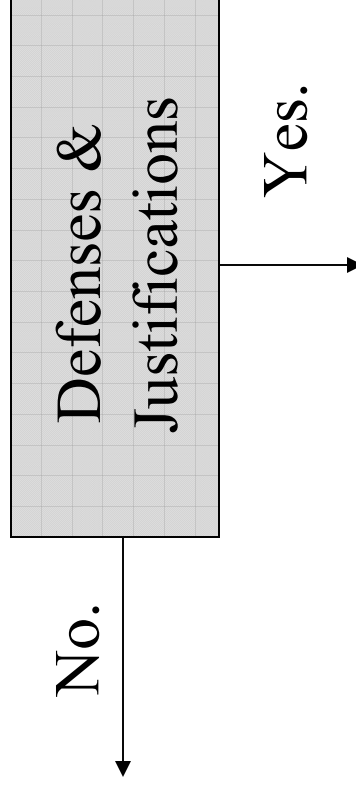
## Java

Incompatible Java is OK!  
Deception & Threats to Intel  
What's the Alternative?

# Microsoft III/ Theory 1

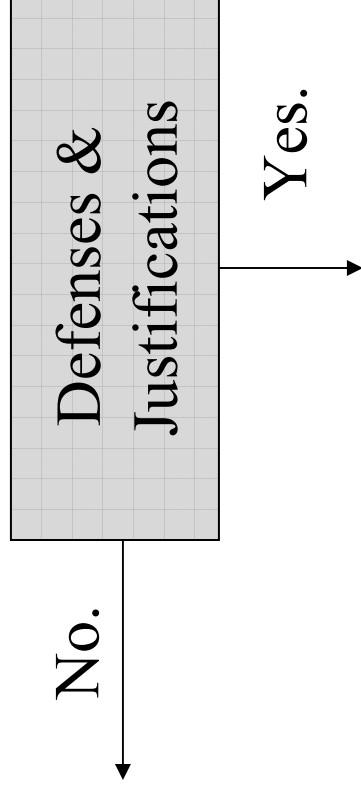
## IP vs. Antitrust

Microsoft's argument that copyright allows it to prevent people from changing the desktop "... is no more correct than the proposition that one's personal property, such as a baseball bat, cannot give rise to tort liability" [p. 33]



# Microsoft III/ Theory 1

**Monopolization:**



Copyright Defense:

“Drastic Variation”

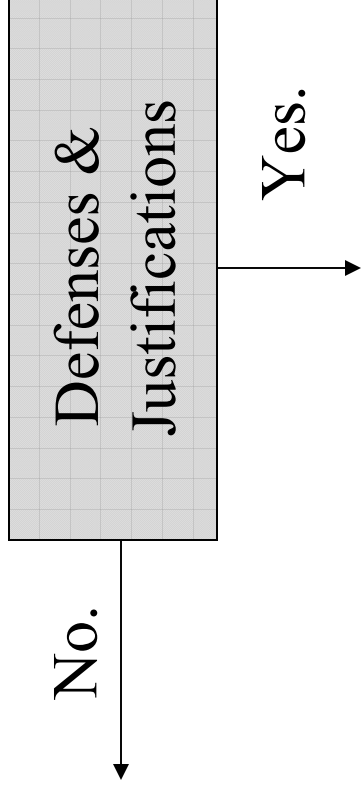
“Stable and Consistent Platform.”

A Principled Distinction?

# Microsoft III/

## Theory 1

**Monopolization:**



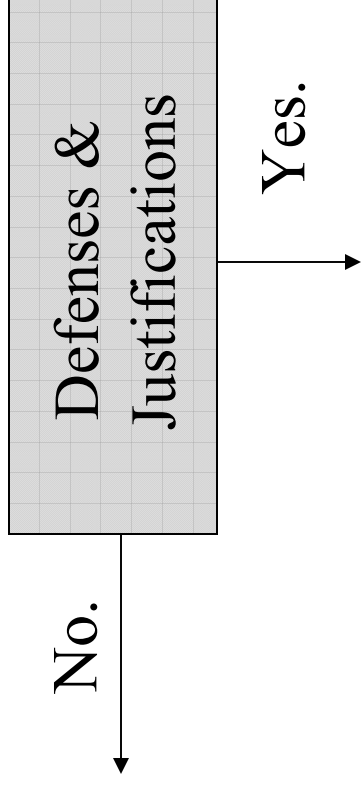
**Bundling**

No Justification for Commingling  
or Taking IE Off Add/Remove List

“Valid Technical Reasons” for  
Overriding Browser Choice

# Microsoft III/ Theory 1

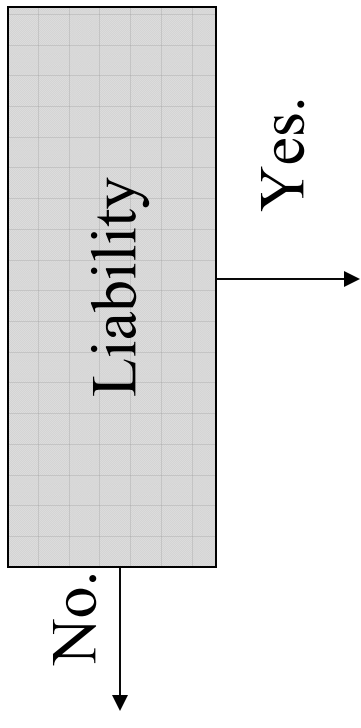
## Monopolization:



## Agreements With IAPs & ISVs

“No Justification”

# Microsoft III/ Theory 2

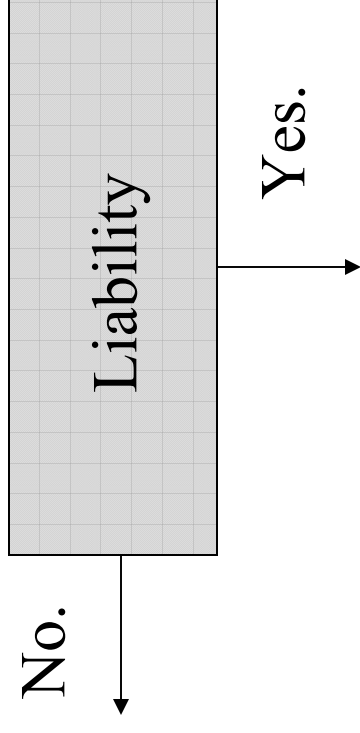


## Theory 2: Attempted Monopolization of the Browser Market [§2]



# Microsoft III/ Theory 2

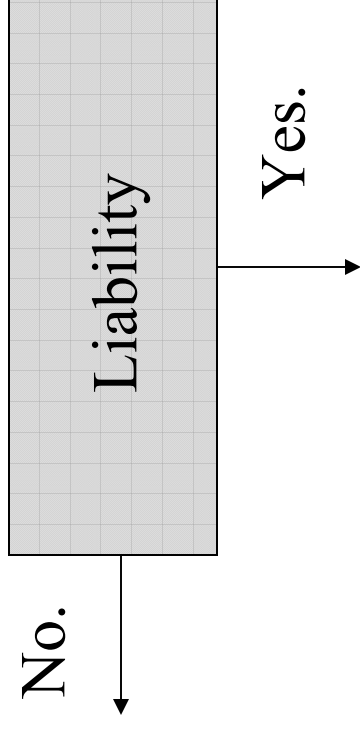
## Section 2/Attempted Monopolization (Browsers)



- (1) Anticompetitive conduct
- +
- (2) Specific intent to monopolize
- +
- (3) Dangerous probability of success.

# Microsoft III/ Theory 2

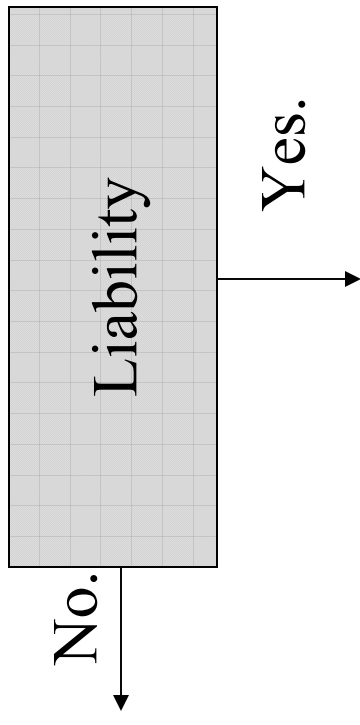
## Attempted Monopolization



## Dangerous Probability of Success

- What barriers to entry?

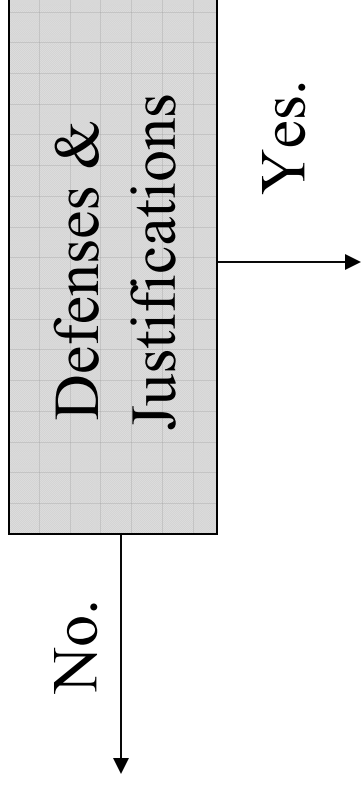
# Microsoft III/ Theory 3



## Theory 3: Tying Browser to Operating System [§2]

# Microsoft III/ Theory 3

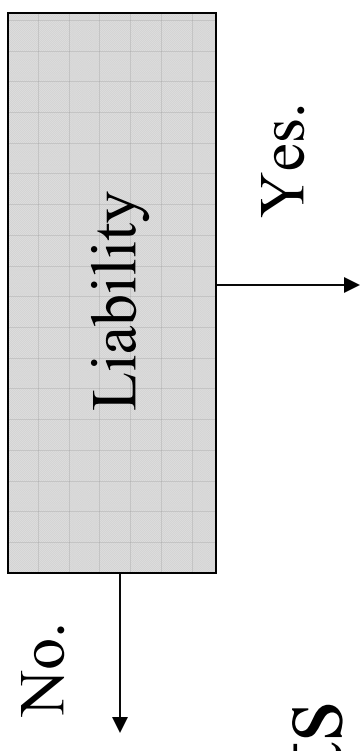
## Section 1/Tying:



“Enmesh[ing] the courts in product design decisions.” [p. 80].

# Section 1 Tying

## Microsoft III/ Theory 3

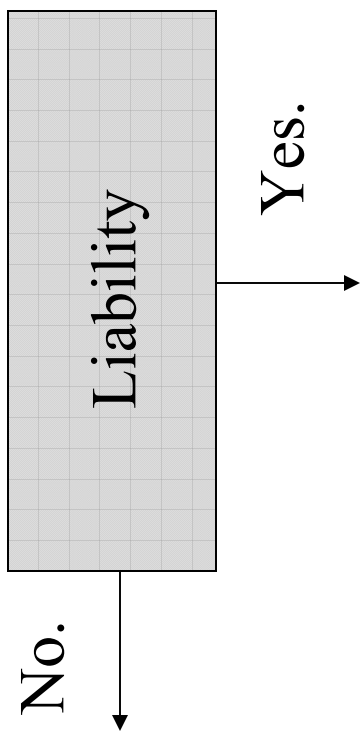


Elements:

- (1) Two separate products
- (2) Market power in the tying product
- (3) Consumers have no choice in the tie
- (4) Substantial volume of commerce is affected.

# Section 1 Tying

# Microsoft III/ Theory 3



Traditional rationale:  
Leveraging Monopoly  
An Incoherent Doctrine?

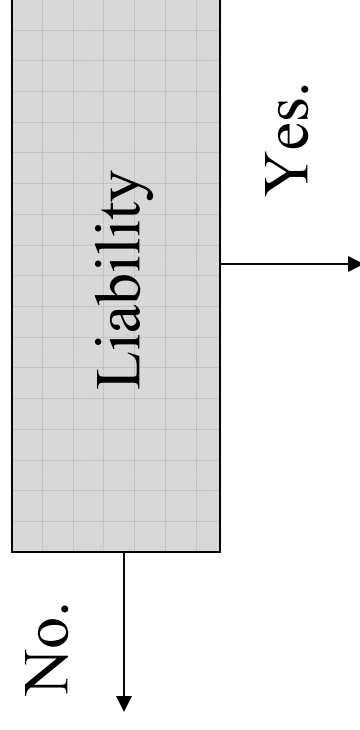
Law

Economics

# Microsoft III/

## Theory 3

### Section 1 Tying

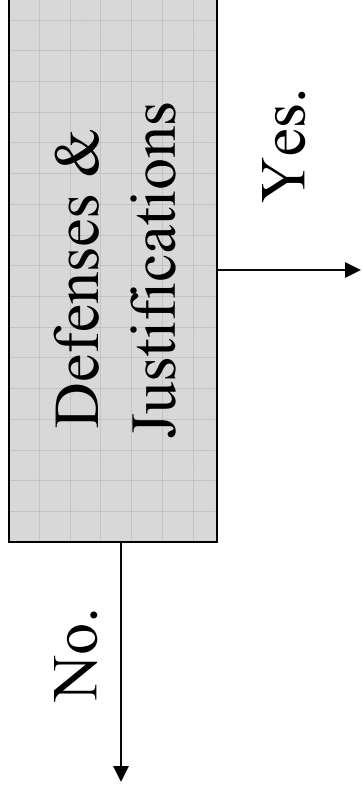


*New Rationale: Consumer choice.*

- Efficiency of integration; “Novel, purported efficiencies” [p. 79].

# Microsoft III/ Theory 3

## Section 1/Tying:

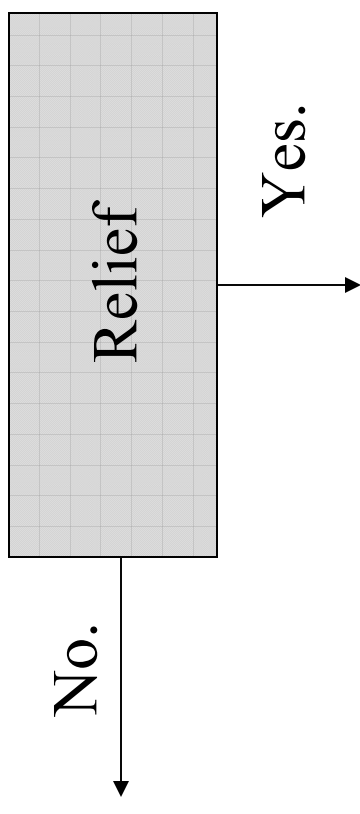


- Enmesh[ing] the courts in product design decisions.” [p. 80].

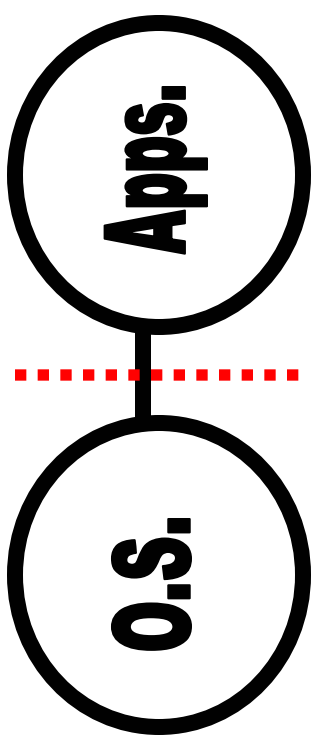


# Microsoft III/ Relief

## Relief

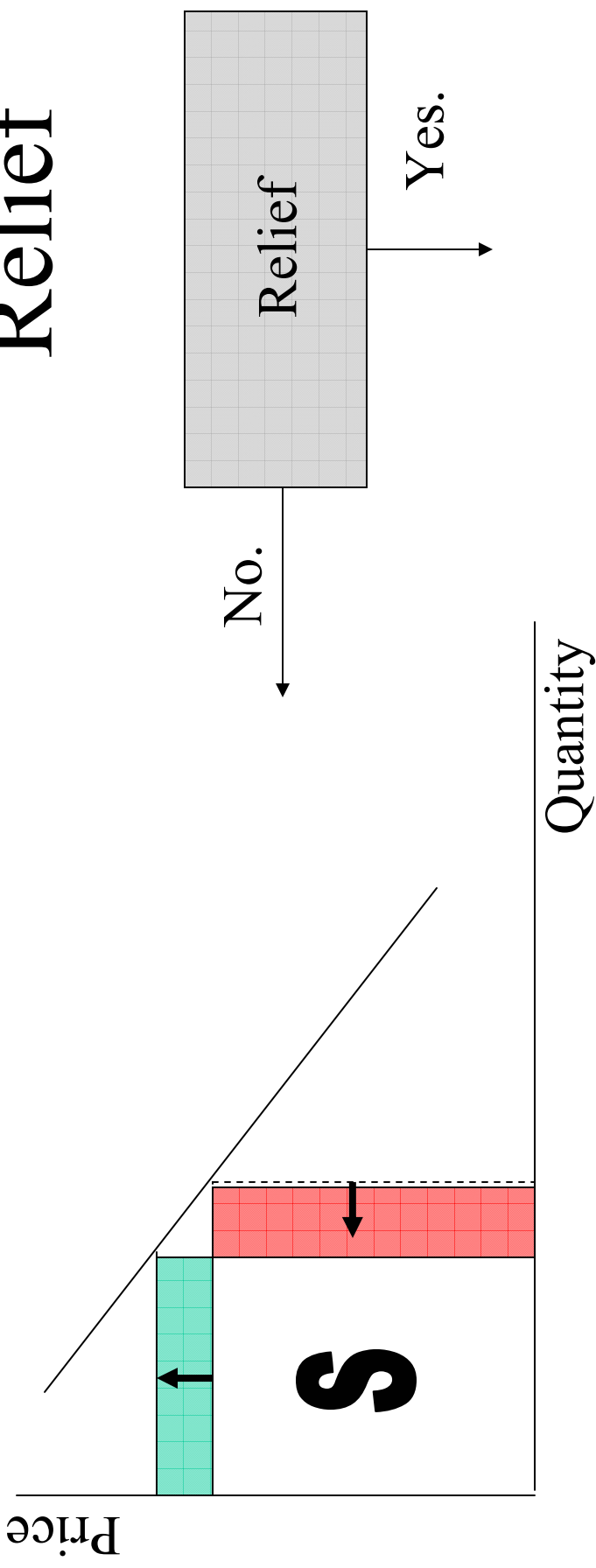


# Structural Relief Judge Jackson's Sin The Cournot Problem



# Microsoft III/

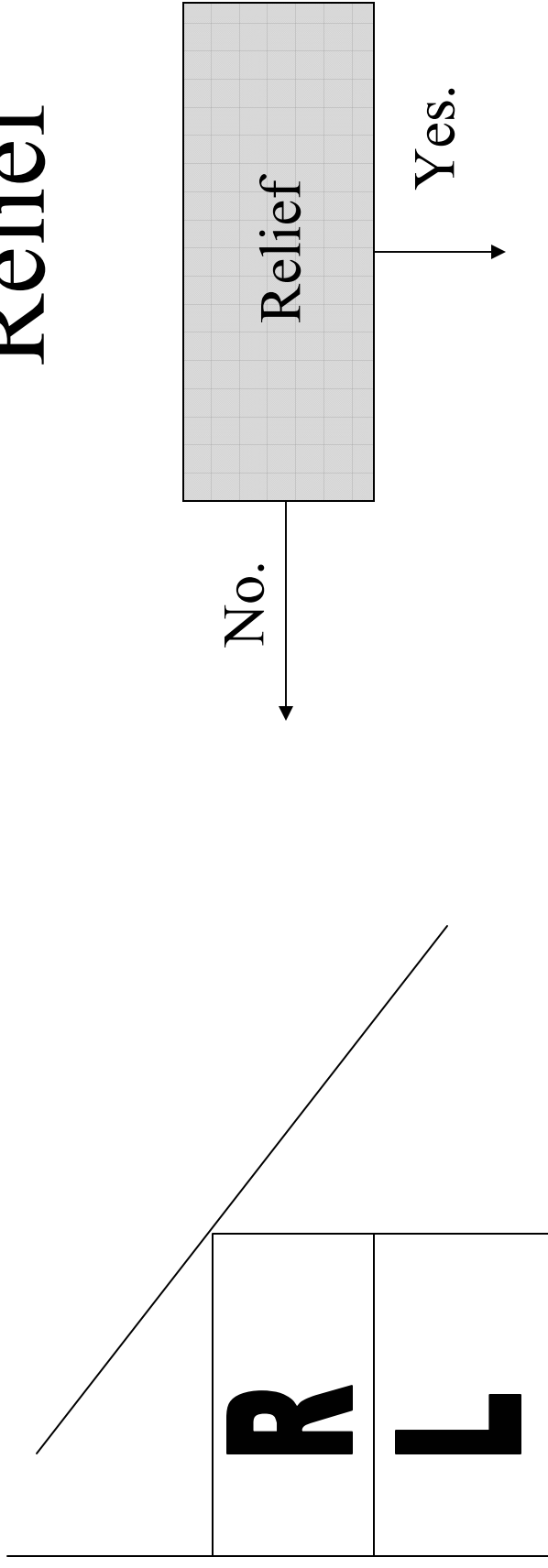
## Relief



# Ordinary Case: The Shoe Monopolist

# Microsoft III/

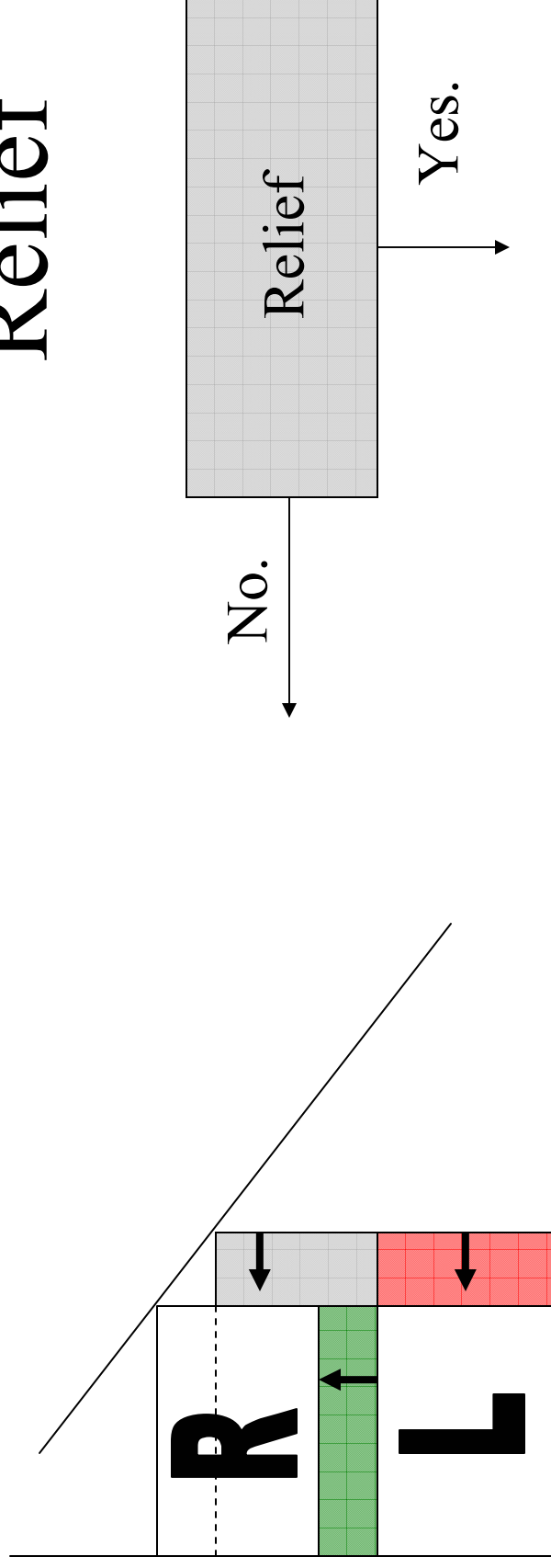
## Relief



# Complementary Goods: The Left Shoe Monopolist

# Microsoft III/

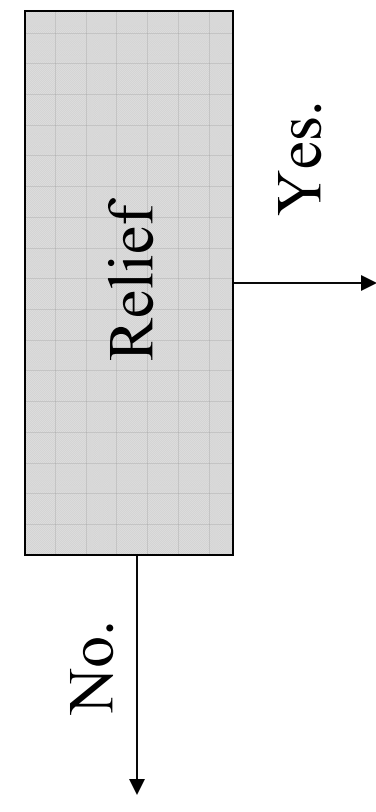
## Relief



# Complementary Goods: The Left Shoe Monopolist

# Microsoft III/

## Relief



## Epilogue

District Court (Kotelly-Kolar)

Proportionate Relief

The Middleware Fight

**The Clones Issue?**

# Microsoft IV

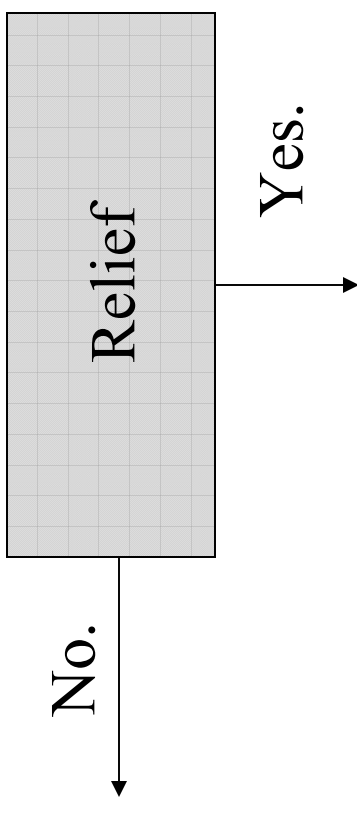
2004 - ? : *Microsoft IV* (E.C.)

Server Market

Media Player

# Microsoft IV

## Designing Relief



The EC

Fines

**Compulsory Licensing**

Opening The Interface

Unbundling Media Player

# Conclusion: Taking Stock

## Old Issues:

Is Antitrust Necessary?

Delay, Cost

Available Relief

Balancing IP against Monopoly.

“Misusing” Patents

Breaking Up

“Irreplaceable” Institutions



# Conclusion: Taking Stock

## New Issues:

Beyond Classical Microeconomics

Intrinsically Imperfect Markets  
Network Effects, Entrenchment,  
and Externalities

Entanglement (and Fear of Entanglement)  
in Technology Choices