

The Future of Software Patents

by James Bessen

PATENT

A broken lightbulb with a glowing filament, symbolizing failure or a broken idea. The bulb is shattered, with glass shards flying out, and the filament is still lit, casting a warm glow. The background is a gradient of blue and white, with the bulb's reflection visible on a dark surface below it.

FAILURE

HOW JUDGES,
BUREAUCRATS,
AND LAWYERS
PUT INNOVATORS AT RISK

JAMES BESSEN & MICHAEL J. MEURER

Property

**Property
can fail**

43 lawsuits

100s settled

1,000s of "amnesty" letters

- [54] SYSTEM FOR REPRODUCING INFORMATION IN MATERIAL OBJECTS AT A POINT OF SALE LOCATION
- [75] Inventor: Charles C. Freeny, Jr., Fort Worth, Tex.
- [73] Assignee: FPDC, Inc., Oklahoma City, Okla.
- [21] Appl. No.: 456,730
- [22] Filed: Jan. 10, 1983
- [51] Int. Cl.³ G06F 1/00
- [52] U.S. Cl. 364/900
- [58] Field of Search ... 364/200 MS File, 900 MS File

- 4,217,588 8/1980 Freeny, Jr. . .
- 4,220,991 9/1980 Hamano et al. . .
- 4,232,317 11/1980 Freeny, Jr. . .
- 4,265,371 5/1981 Desai et al. . .
- 4,270,182 5/1981 Asija . .
- 4,328,544 5/1982 Baldwin et al. . .

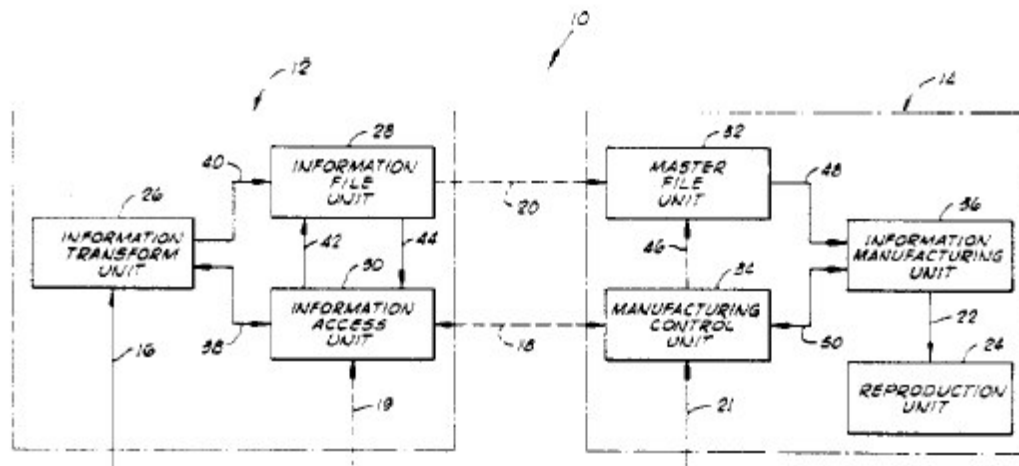
Primary Examiner—Raulfe B. Zache
 Attorney, Agent, or Firm—Dunlap & Coddling

[57] ABSTRACT

The present invention contemplates a system for reproducing information in material objects at a point of sale location wherein the information to be reproduced is provided at the point of sale location from a location remote with respect to the point of sale location, an owner authorization code is provided to the point of sale location in response to receiving a request code from the point of sale location requesting to reproducing predetermined information in a material object, and the predetermined information is reproduced in a material object at the point of sale location in response to receiving the owner authorization code.

- [56] References Cited
- U.S. PATENT DOCUMENTS
- 3,829,833 8/1974 Freeny, Jr. . .
- 3,911,397 10/1975 Freeny, Jr. . .
- 3,924,065 12/1975 Freeny, Jr. . .
- 3,946,220 3/1976 Brobeck et al. . .
- 3,970,992 7/1976 Boothroyd et al. . .
- 4,071,911 1/1978 Mazur 364/900
- 4,112,421 9/1978 Freeny, Jr. . .
- 4,209,787 1/1980 Freeny, Jr. . .

56 Claims, 4 Drawing Figures



enforcement

inadvertent infringement

Incentives

Incentives
invest
commercialize
trade

How does property fail?



“fuzzy” boundaries

“information manufacturing machine”

“point of sale location”

“material object”

“point of sale location”

How does property fail?

How does property fail?
fuzzy boundaries =>

How does property fail?

fuzzy boundaries =>

disputes =>

How does property fail?

fuzzy boundaries =>

disputes =>

risk of litigation =>

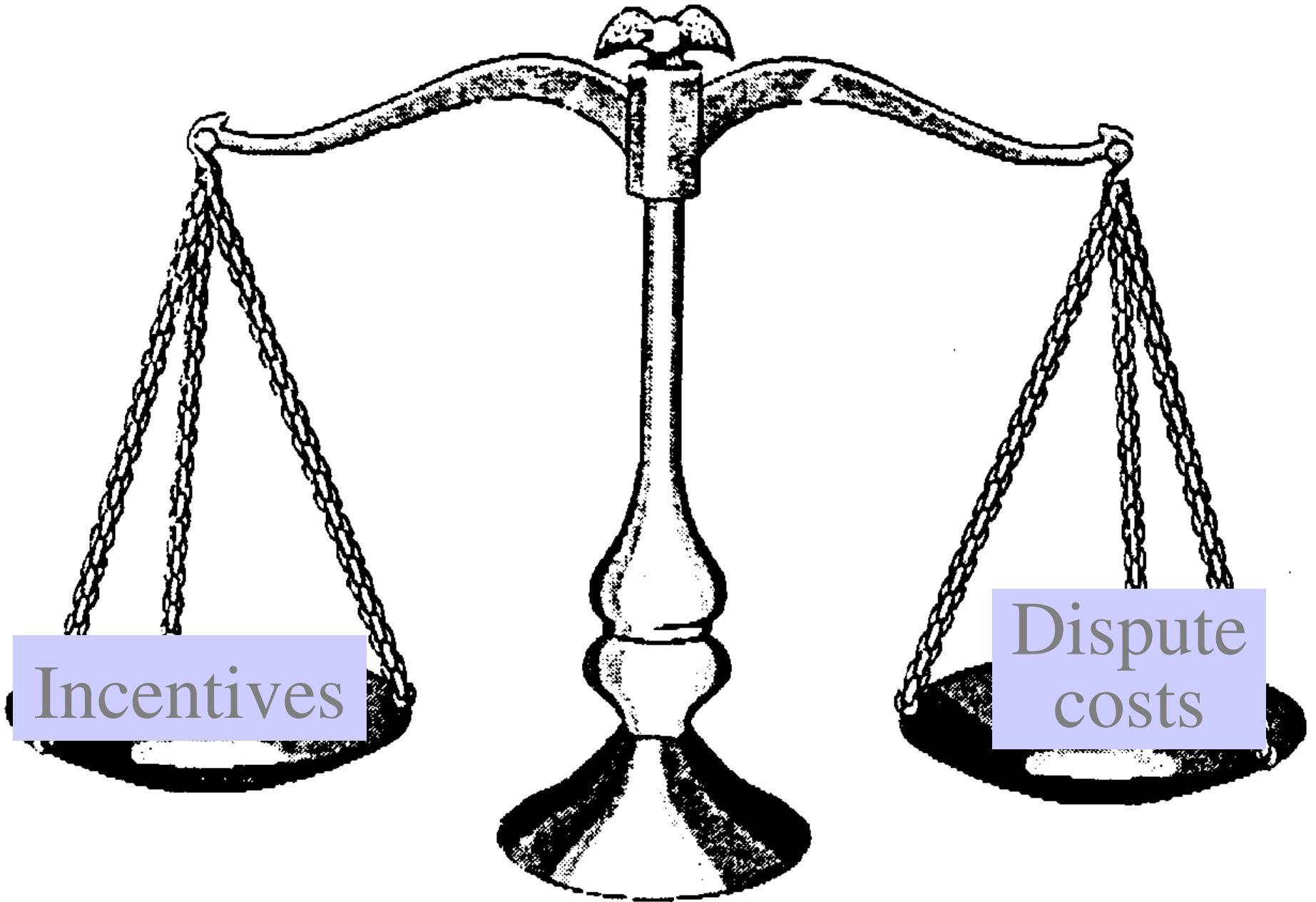
How does property fail?

fuzzy boundaries =>

disputes =>

risk of litigation =>

disincentive



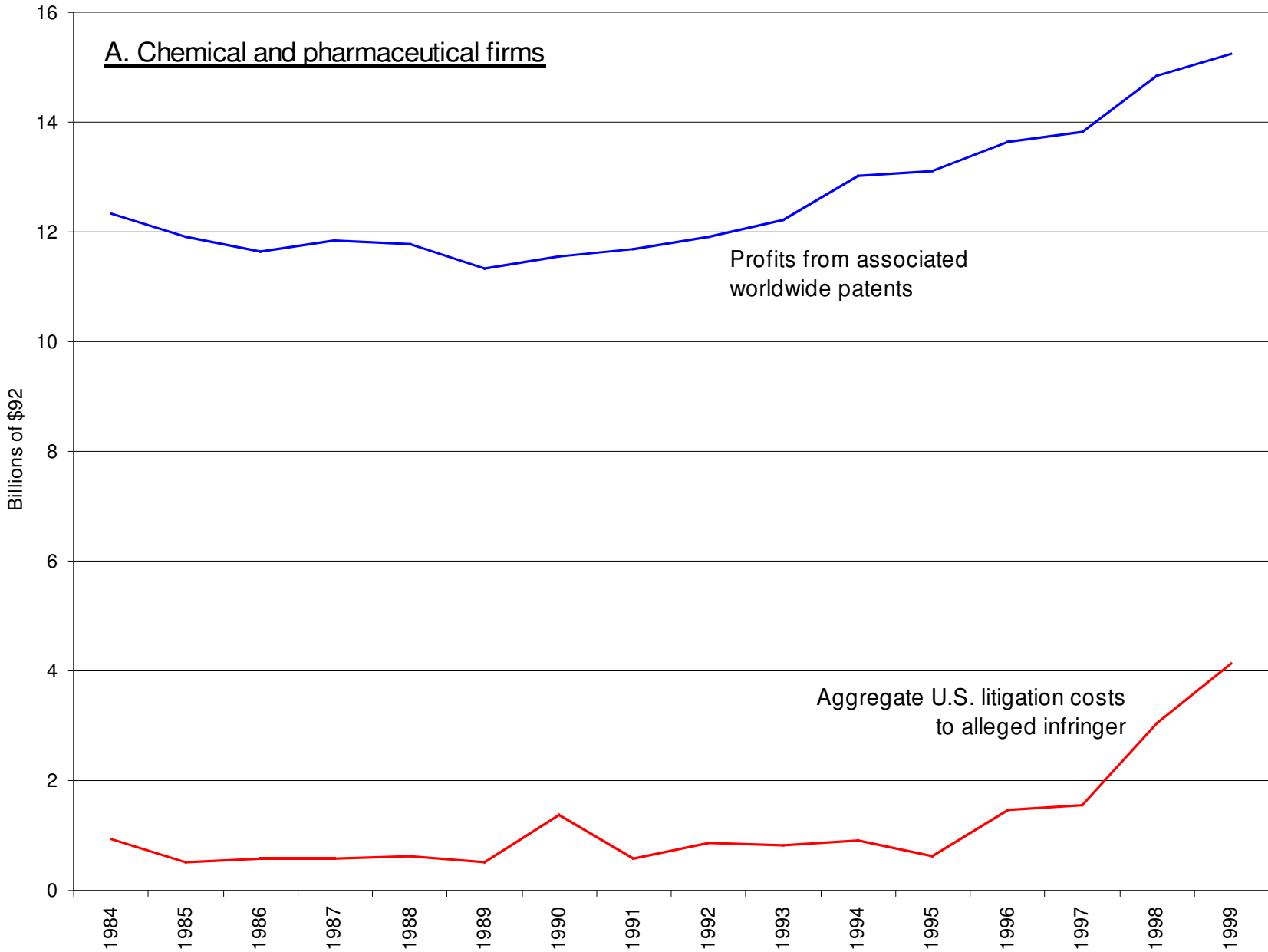
Incentives

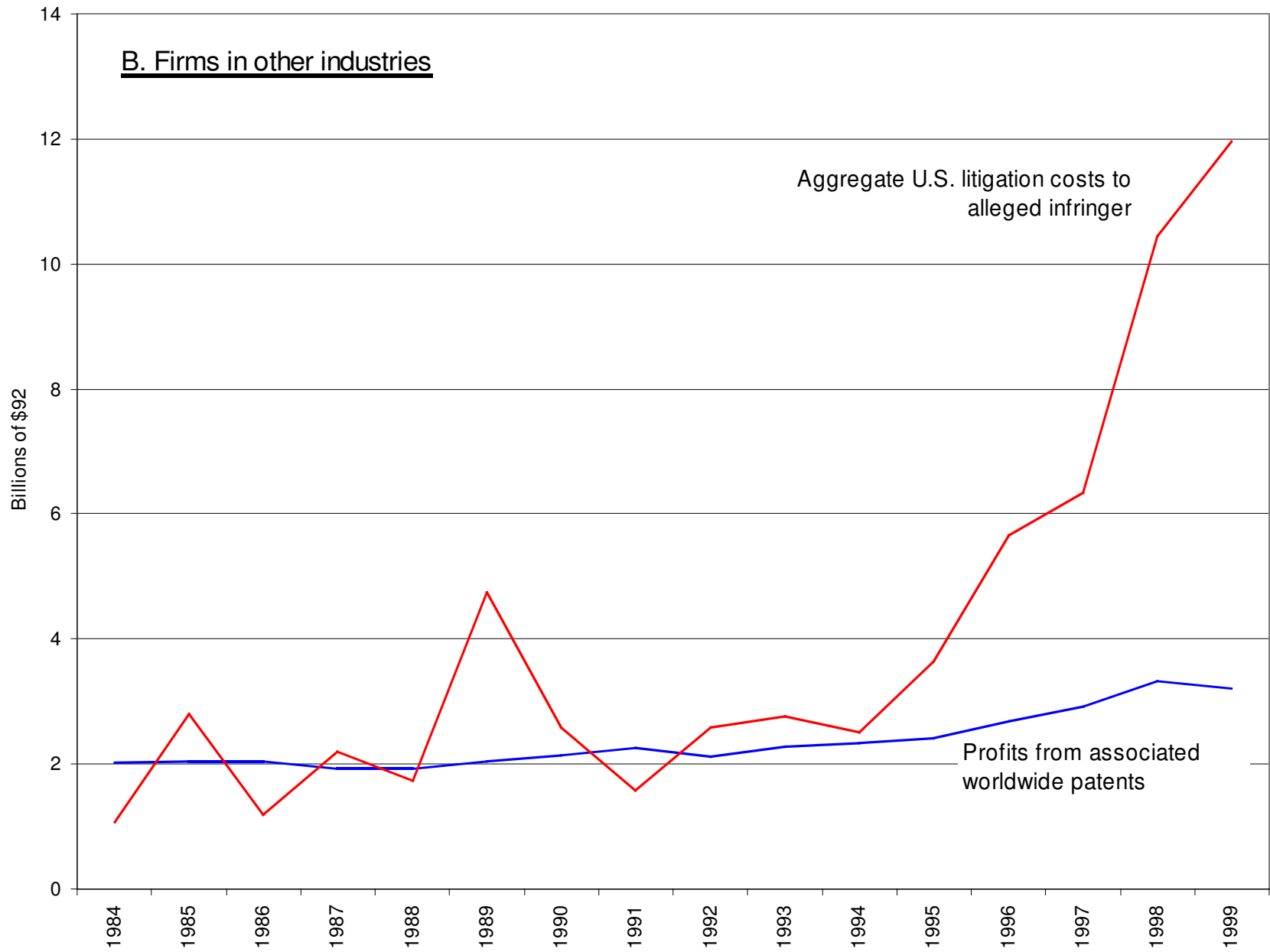
Dispute
costs

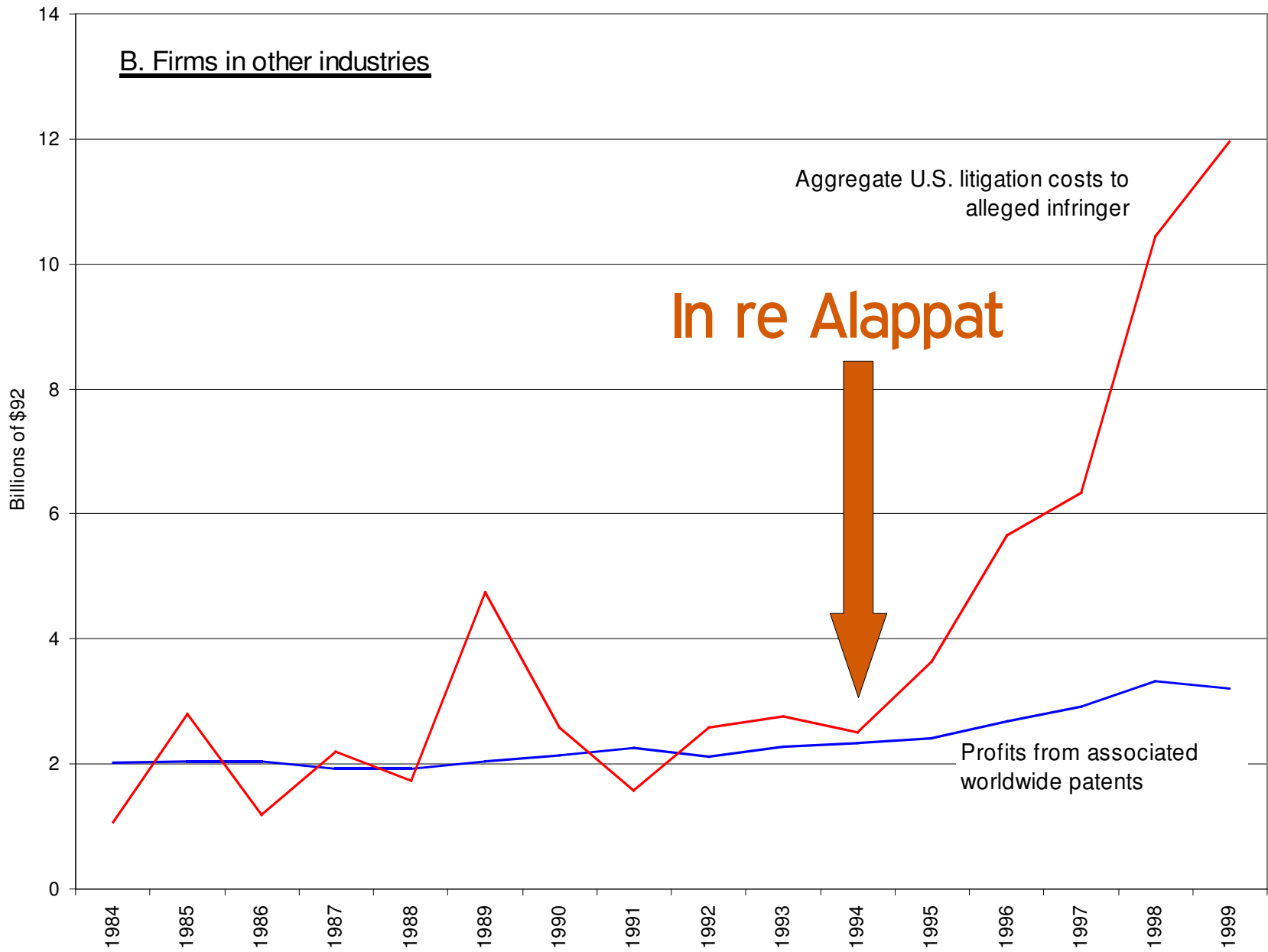
Incentive = profits from patents

Dispute costs > litigation costs

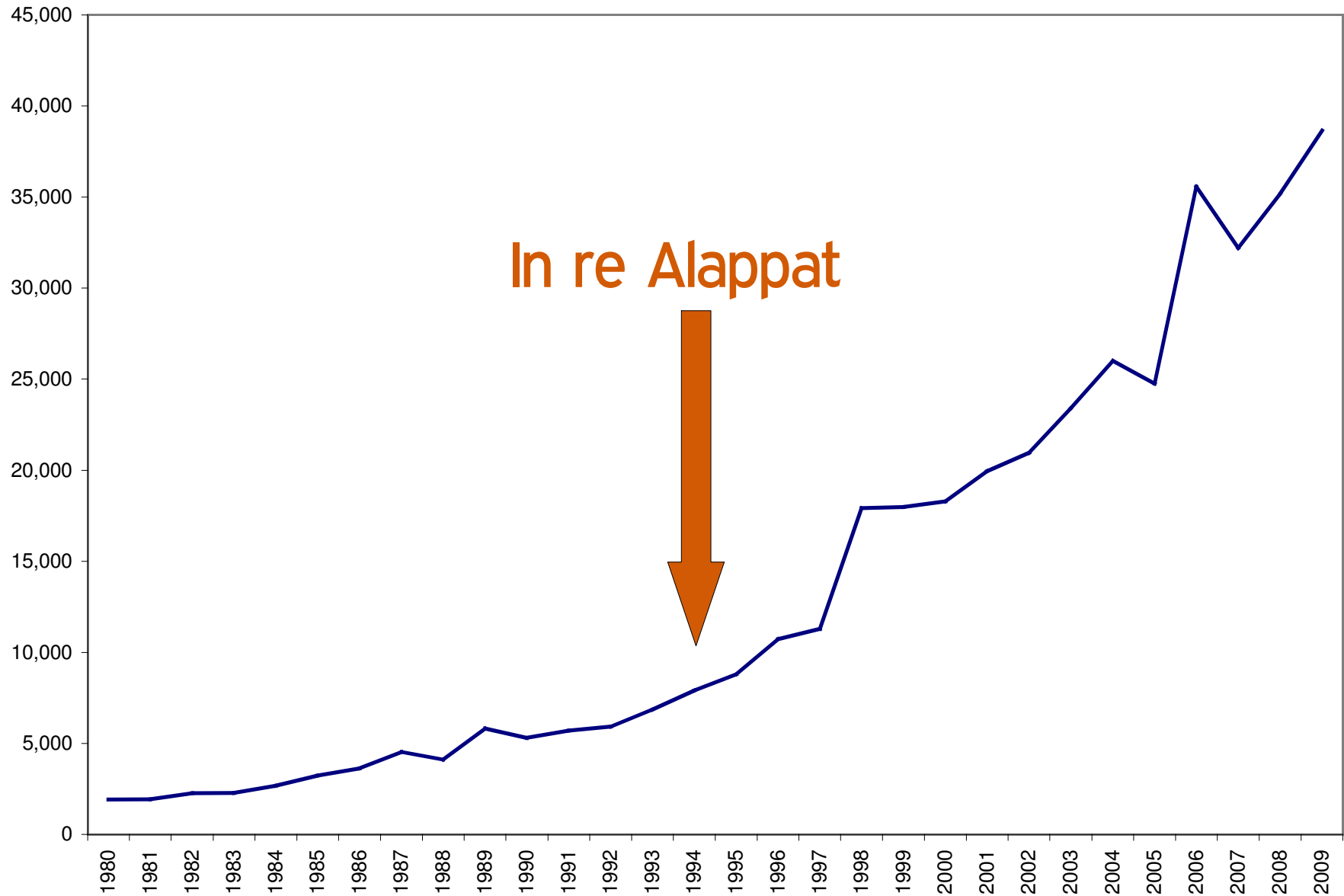
A. Chemical and pharmaceutical firms



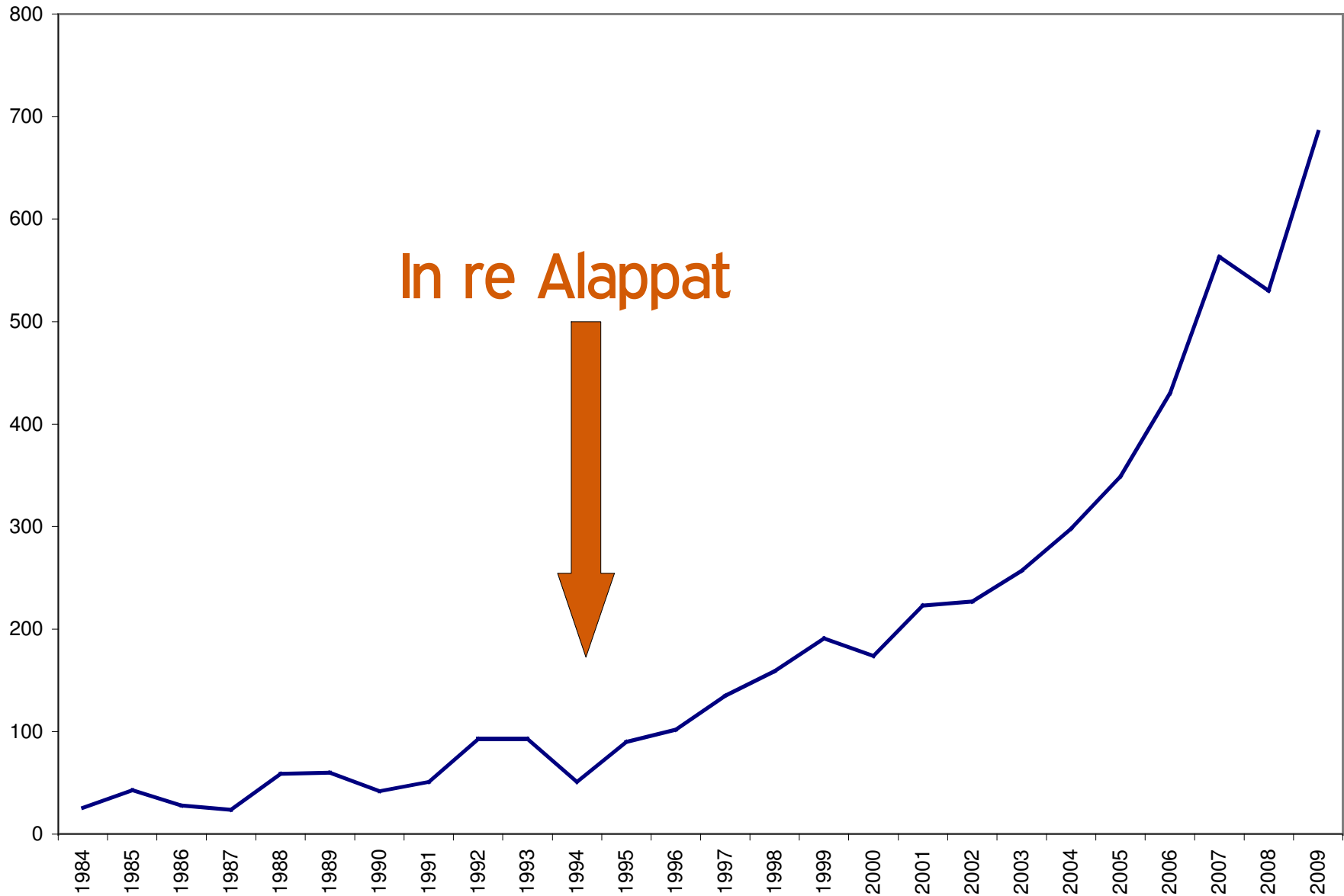




SW patents issued



SW patent lawsuits filed



Software patent \approx

patent with main novel element in a
computer program

What's the problem?

What's the problem?

"fuzzy boundaries"

What's the problem?

"fuzzy boundaries"

lots of `em

What's the problem?

"fuzzy boundaries"

lots of `em

little incentive

Incentives

Few SW firms get patents

Share of firms receiving any patents	1996	2006
Public firms, SW and services (SIC 737)	20%	27%
Public startup firms, SW and services	17%	14%
All SW startups		24%*
VC funded startups	24%**	67%*

* Graham et al. Berkeley survey (2009) percent with patents ever

** Mann & Sager survey (2005), percent with patents within 5 years

Large SW firms get patents today

Top 10 SW industry patentees (SIC 7372)

1996		2006	
97	Microsoft Corp	1461	Microsoft Corp
20	Borland Software	178	Oracle Corp
13	Intergraph Corp	116	Cadence Design
12	Adobe Systems Inc	76	Digimarc Corp
11	Wang Labs Inc	74	National Instruments
9	National Instruments	59	Adobe Systems Inc
9	Cadence Design	56	SAP AG -Adr
8	Oracle Corp	44	Synopsys Inc
6	3do Co	37	Autodesk Inc
6	Sybase Inc	37	BEA Systems Inc

SW firms get *few* SW patents

Share of software patents granted	1996	2006
To prepackaged SW firms (SIC 7372)	3%	10%
To Microsoft	1%	5%
To software & services (SIC 737 excluding IBM)	11%	17%

Little incentive

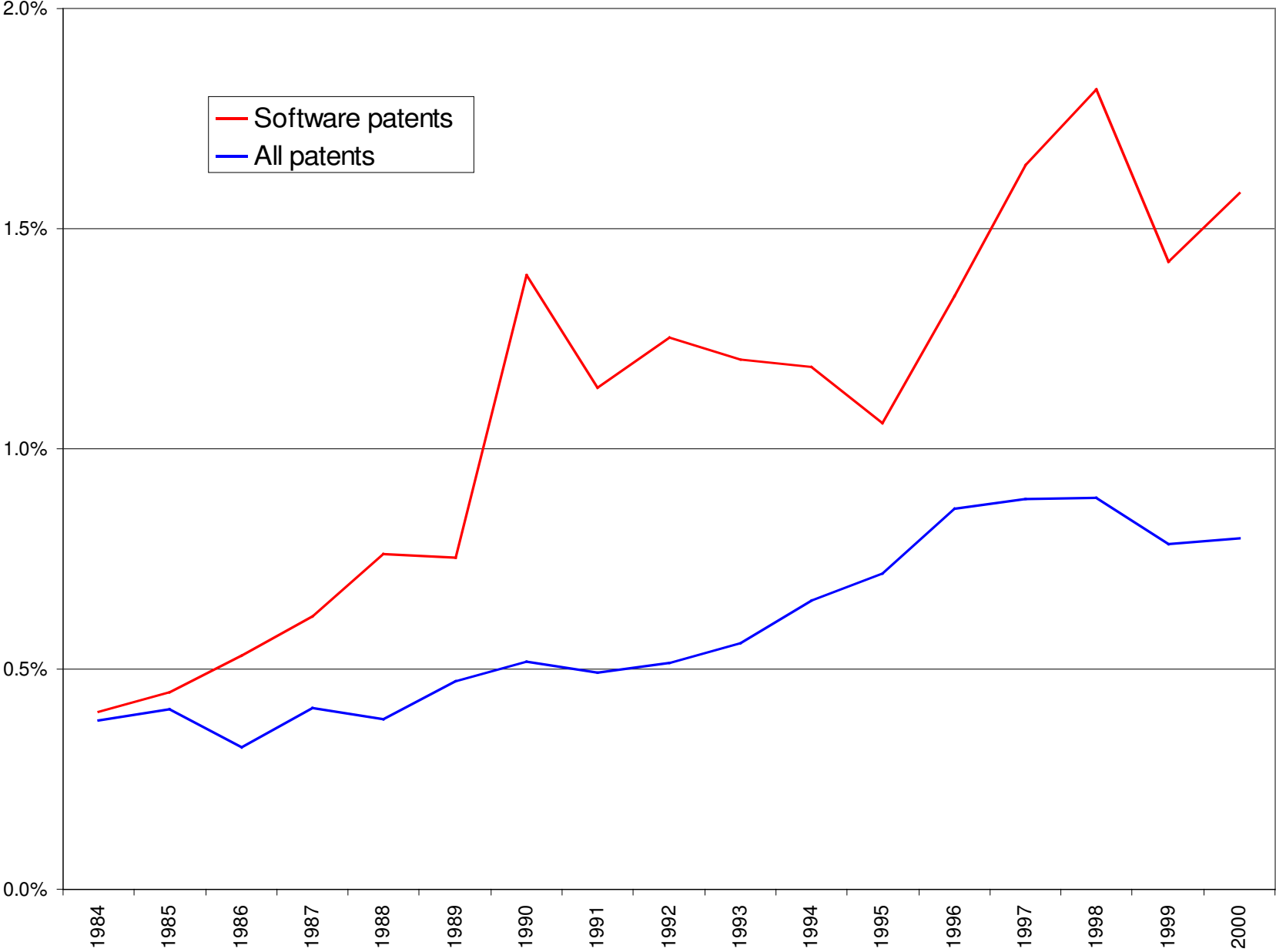
Disincentives

Technology	Probability patent in suit	Percent of lawsuits (2002)
Chemical	1.1%	13%
Complex	2.0%	34%
Other	2.2%	
Software	4.6%	26%
business methods	13.7%	4%
Biotechnology	3.2%	3%

What's wrong with software ?

Because it is new ?

Probability Patent in Lawsuit within 4 years of issue



intangible ?

abstract ?

What's wrong with SW ?

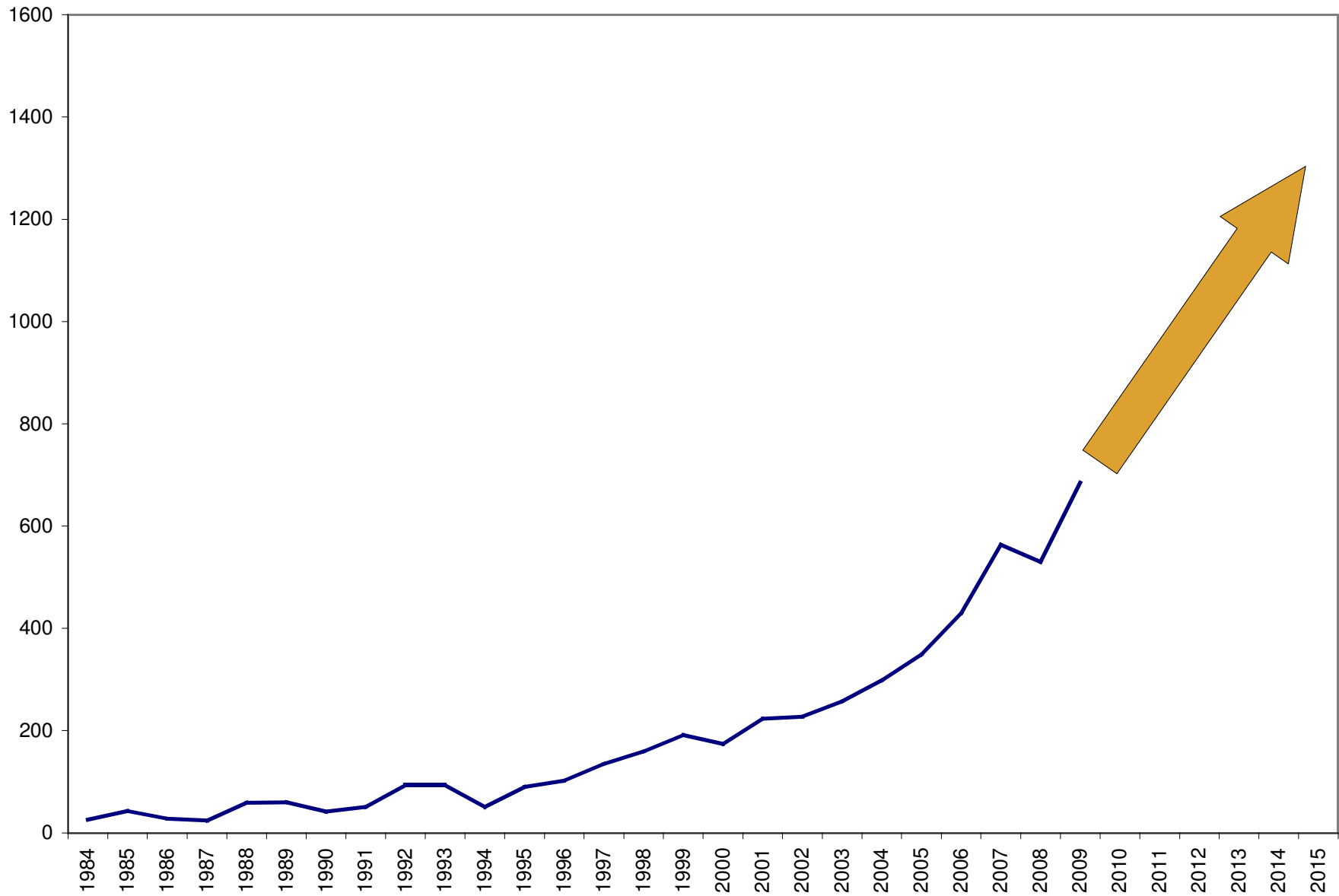
"fuzzy"

too many patents

little incentive

Future?

SW patent lawsuits filed



legislation

The courts

The courts

KSR *v* Teleflex (obviousness, 2007)

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KSR *v* Teleflex (obviousness, 2007)

Bilski *v* Kappos (abstract, 2010)

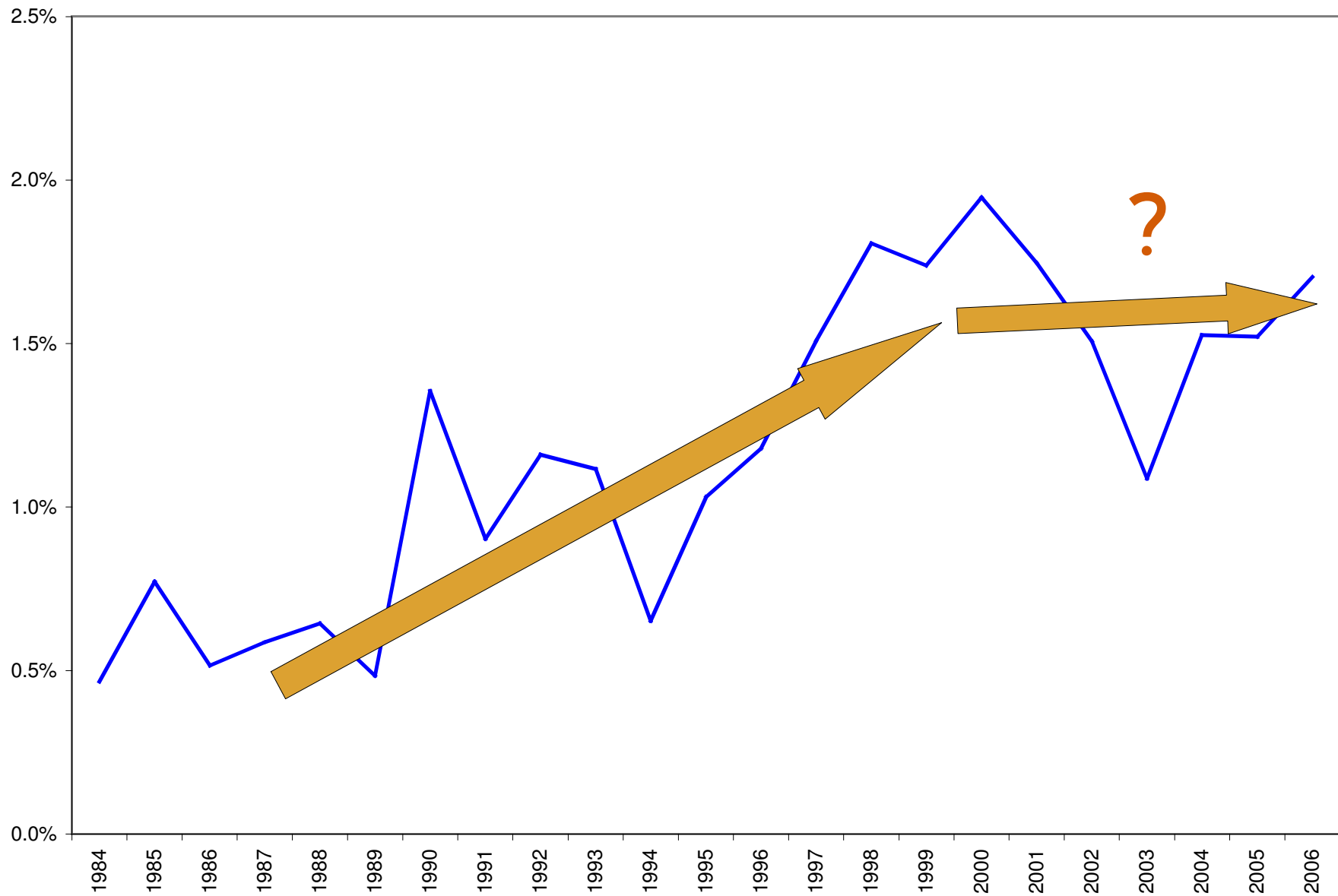
The courts

KSR *v* Teleflex (obviousness, 2007)

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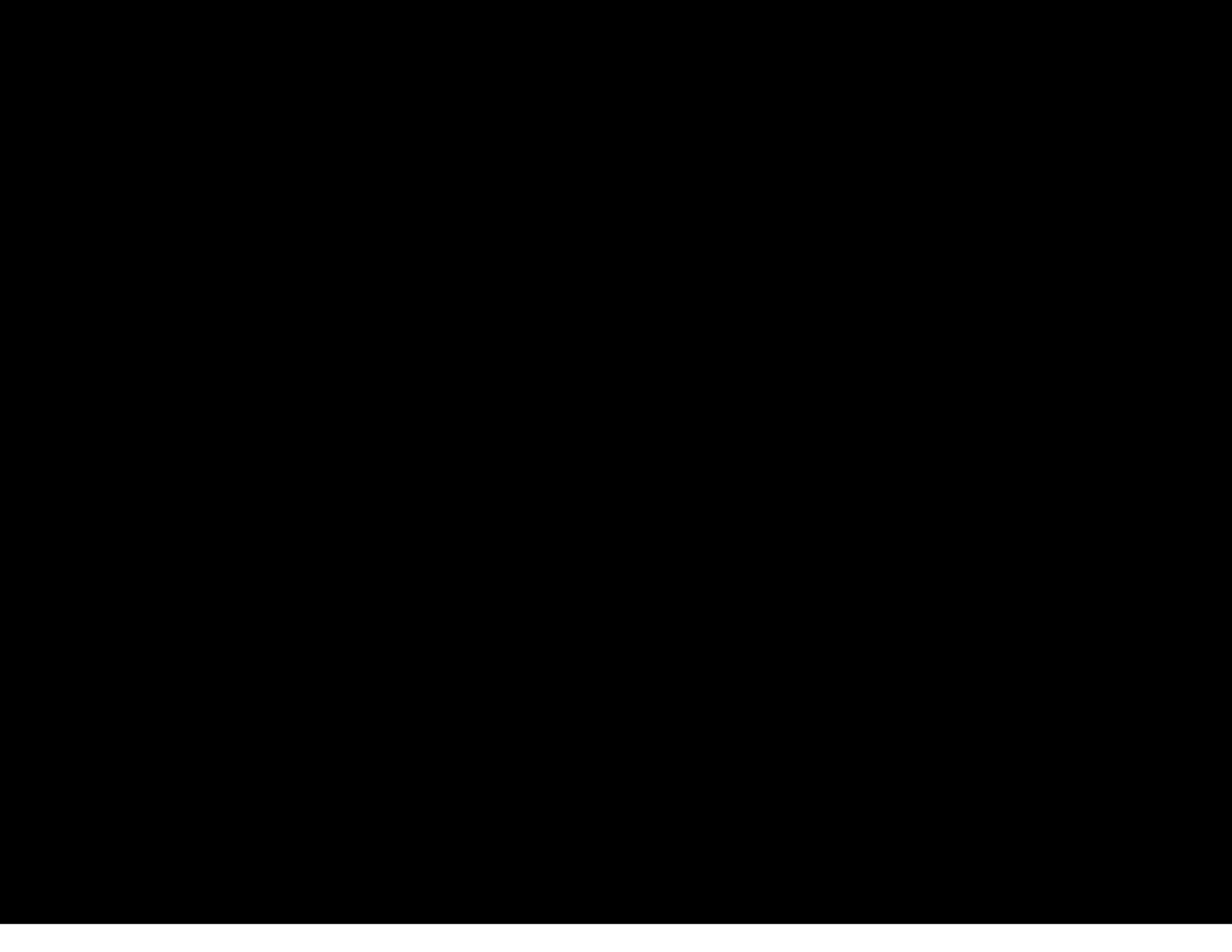
Enzo *v* Applera (ambiguity, ??)

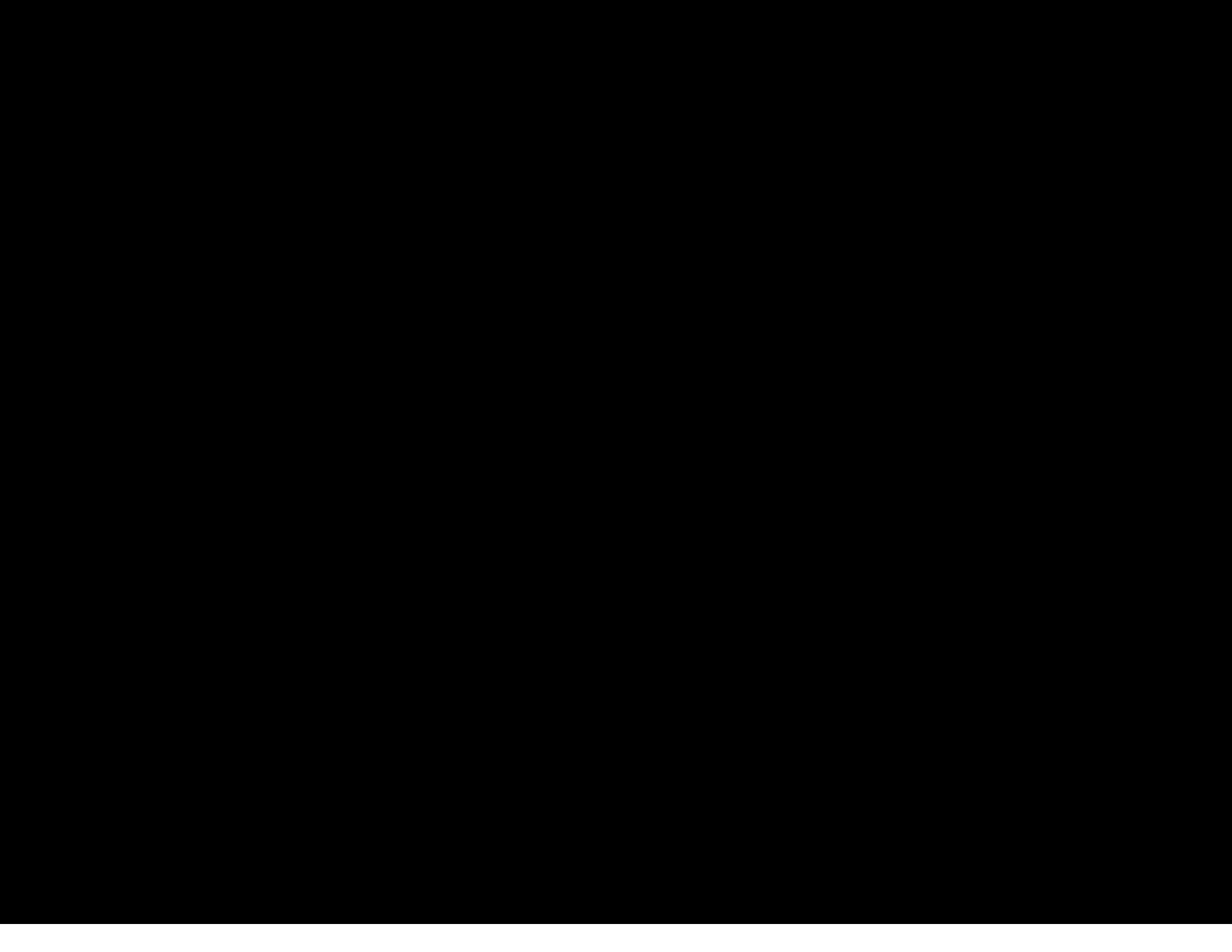
Probability SW patent in suit (1st 4 yrs)



worse

worse
before better





	Relative frequency of claim construction appeal
ALL	1.0
Chemical	0.8
Complex	0.9
Other	1.1
Software	2.2
business methods	6.7
Biotechnology	2.4