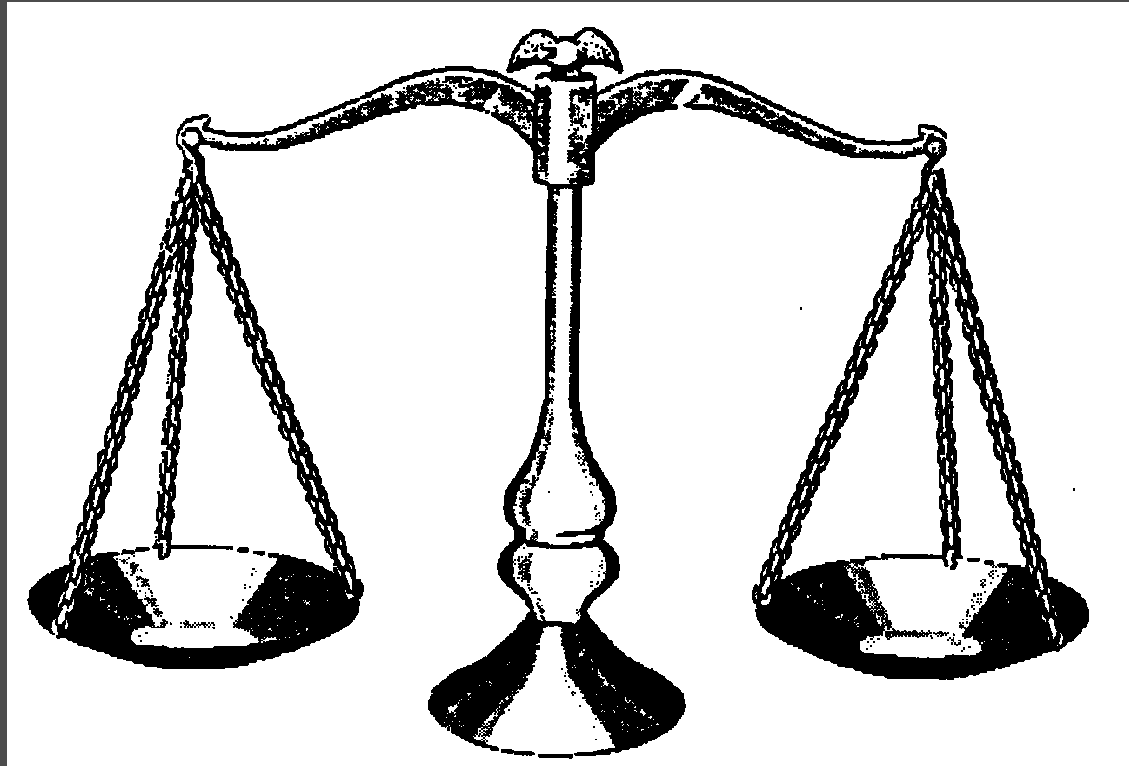


Patents in the Balance



by James Bessen

Do patents work
as property?

Incentives

Property can fail



“fuzzy” boundaries

Why?

Mapping words to technology

Scope > invention

Patent flood

Inadvertent infringement

Inadvertent infringement



Costly disputes

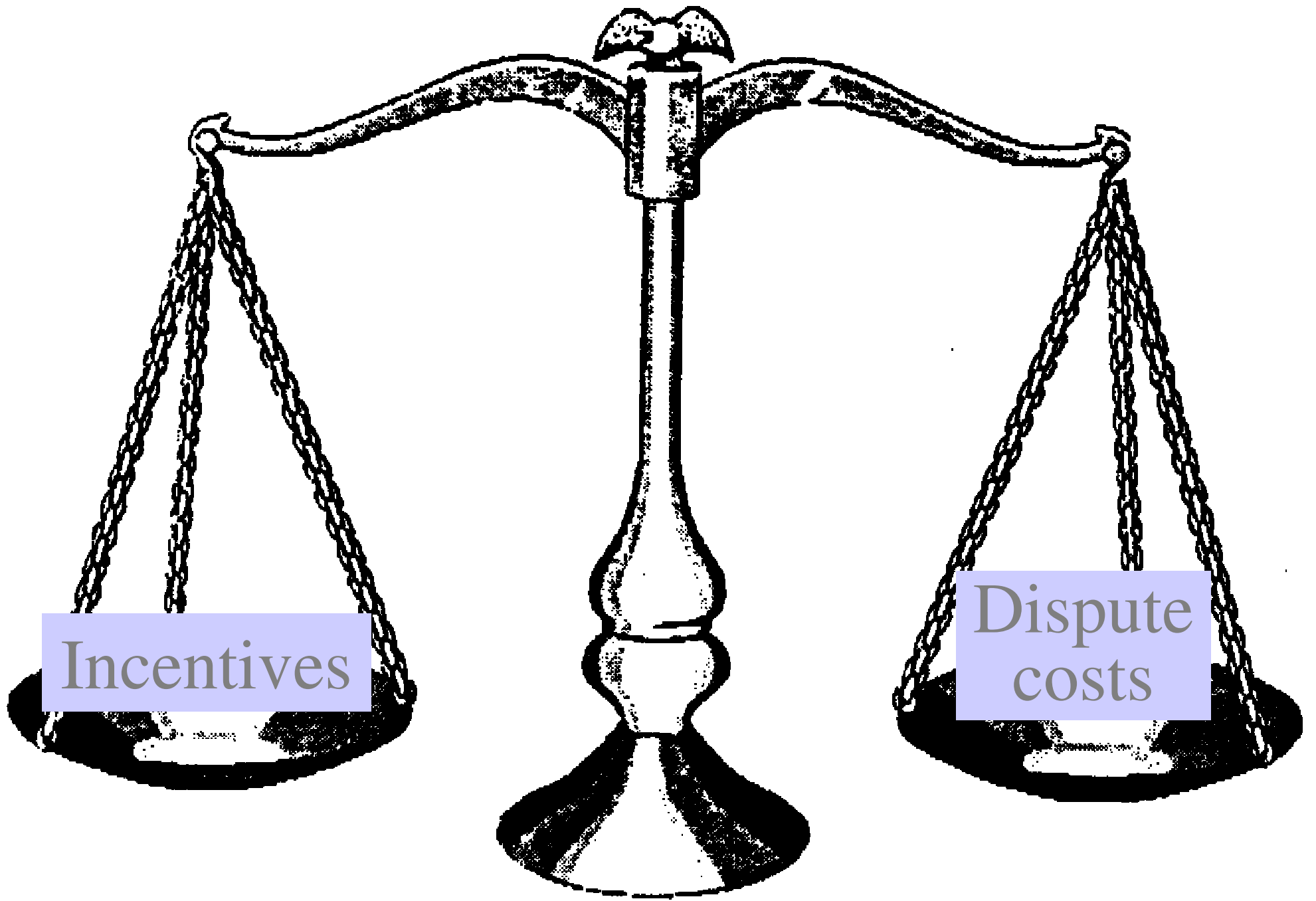
Inadvertent infringement



Costly disputes



Reduced incentives



Incentives

Dispute
costs

Incentive = patent value
(not invention value)

National patent values (renewal method)

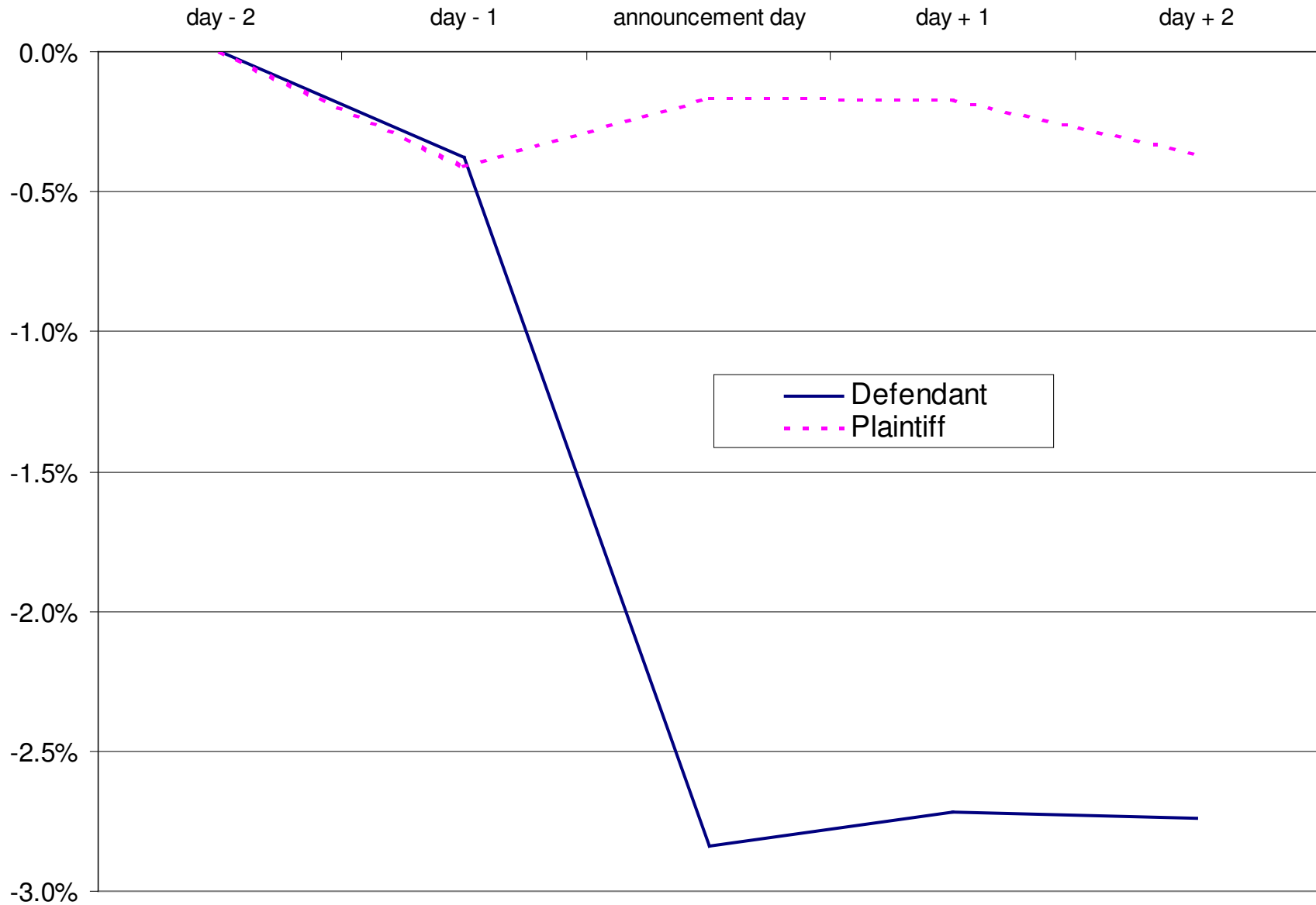
Study	Patent Issue Year	Patent Country	Mean patent value (92 \$US)
Barney (2002)	1986	US	61,896
Bessen (2006)	1991	US	78,168
	public manu. firms 1985-91	US	113,067
Serrano (2005)	1983-2002	US	47,456
Putnam (1996)	1974	US	78,800
Ocean Tomo (2006)	2006	US	23,278
Baudry and Dumont (2006)	2002	France	1,656
Gustafsson (2005)	1970-89	Finland	30,833
Lanjouw (1998)	1967-80	Germany	10,000 – 28,000
Schankerman (1998)	1970	France	7,000 – 32,000
Pakes (1986)	1950-79	France, UK, Germany	9,000 – 26,000
Pakes and Schankerman (1986)	1970	France, UK, Germany	11,000 – 31,000

Worldwide patent values (US firms)

Study	Sample	Sample period	Value per patent (1000s \$92)
<u>Estimates from market value regressions</u>			
Cockburn and Griliches (1988)	Public manufacturing firms	1980	\$213
Megna and Klock (1993)	US public semiconductor firms	1972 - 90	\$343
Hall et al. (2005)	Public manufacturing firms	1979 - 88	
	" (using means)		\$119
	" (using medians)		\$322
Bessen (2006b)	Public R&D performing firms	1979 - 97	\$376
		MEAN	\$275
<u>Estimates based on patentee filing behavior</u>			
Putnam (1994)	All patents applied for in 1974	1974	\$230

Dispute costs > total litigation costs

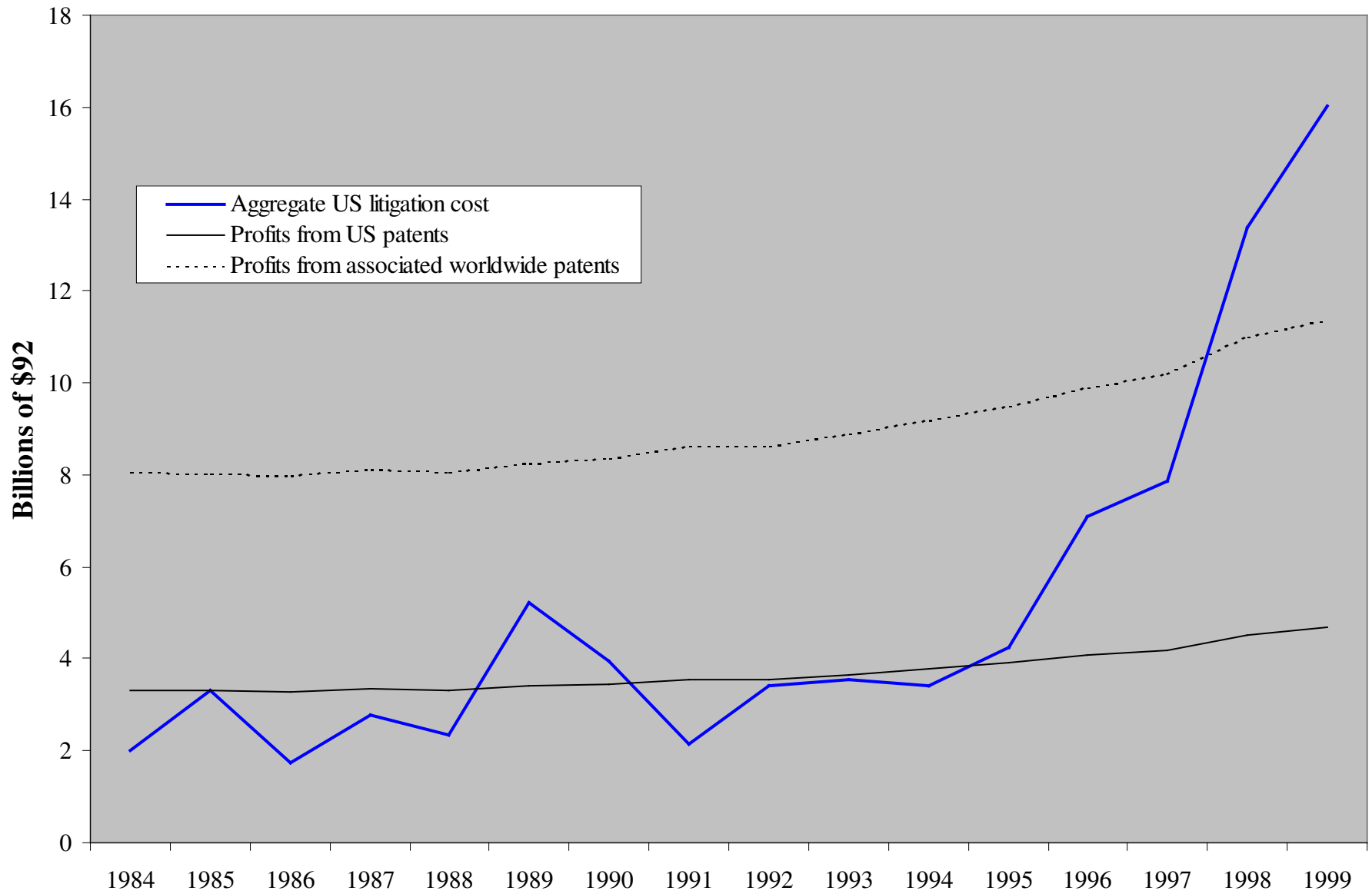
Event study on lawsuit filing



Cost of litigation to US public firms 1984-99

	Party	Median	Mean	Percent Market Value
Lerner (1995)	Both, combined	\$20m	\$60m	2.0%
Bhagat et al. (1996)	Both, combined			3.1%
Bhagat et al. (1998)	Alleged infringer			1.5%
Bessen and Meurer (2007)	Alleged infringer	\$2.9m	\$28.7m	0.6%

US Public Firms



Chemical / pharma ++

Software --

Small inventors
Positive incentives
but reduced

Incentives (US 1991)

US Patents granted (gross)	\$4b
Tax credits	\$2b
Federal subsidies - industrial R&D	\$26b
Company R&D	\$77b
Academic R&D	\$18b

Today, overall, US patents
fail
as property