

Technology and the U.S. Movie Industry

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Questions

- How has technology affected movie industry revenue sources?**
 - In domestic (U.S./Canada) market
 - In international (“foreign”) markets

- What have been effects on movie production?**

- How is the digital (IPTV) conversion affecting the industry —and why?**



Overview

- ❑ **Great expansion in domestic and foreign revenues since 1970s due to:**
 - Successful market segmentation and price discrimination as new movie media proliferate—especially in the U.S.
- ❑ **Great expansion in U.S. production investments, due to...**
 - higher revenues, more efficient distribution
- ❑ **Stagnant/falling revenues since IPTV diffusion, due to....**
 - **several factors...including lower costs of rentals and VOD**

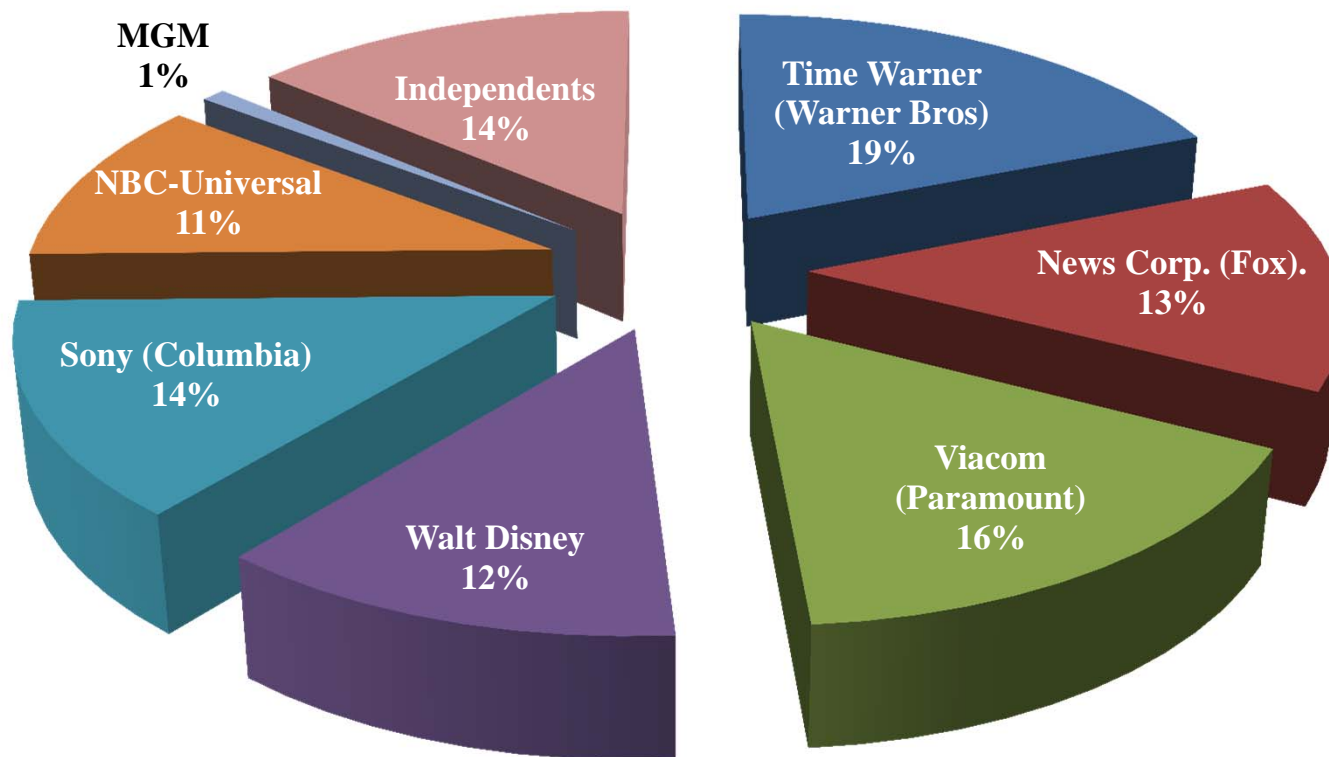


My approach

- **Use an economic model of market segmentation and price discrimination to interpret trends**
 - First, historical expansion, then...
 - Recent contraction



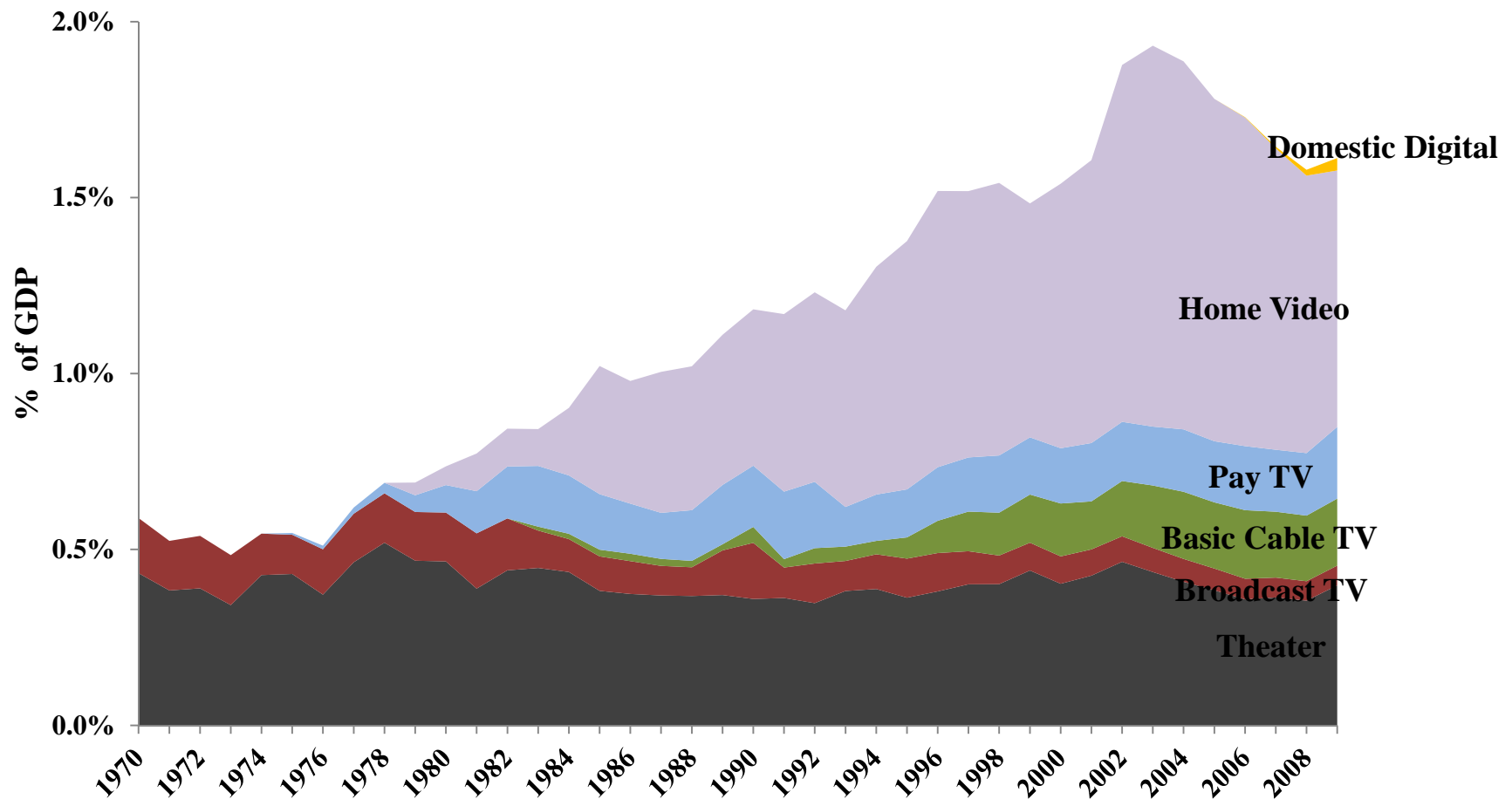
U.S. Studio Domestic Market Boxoffice shares, 2008-2010 averages



Source: derived from SNL Kagan (2011)



U.S. Movie Distributor Revenues*, Domestic Market, as % of GDP, 1970-2009



* Revenue from merchandise is not included.

Sources: Waterman (2005); SNL Kagan (2010)

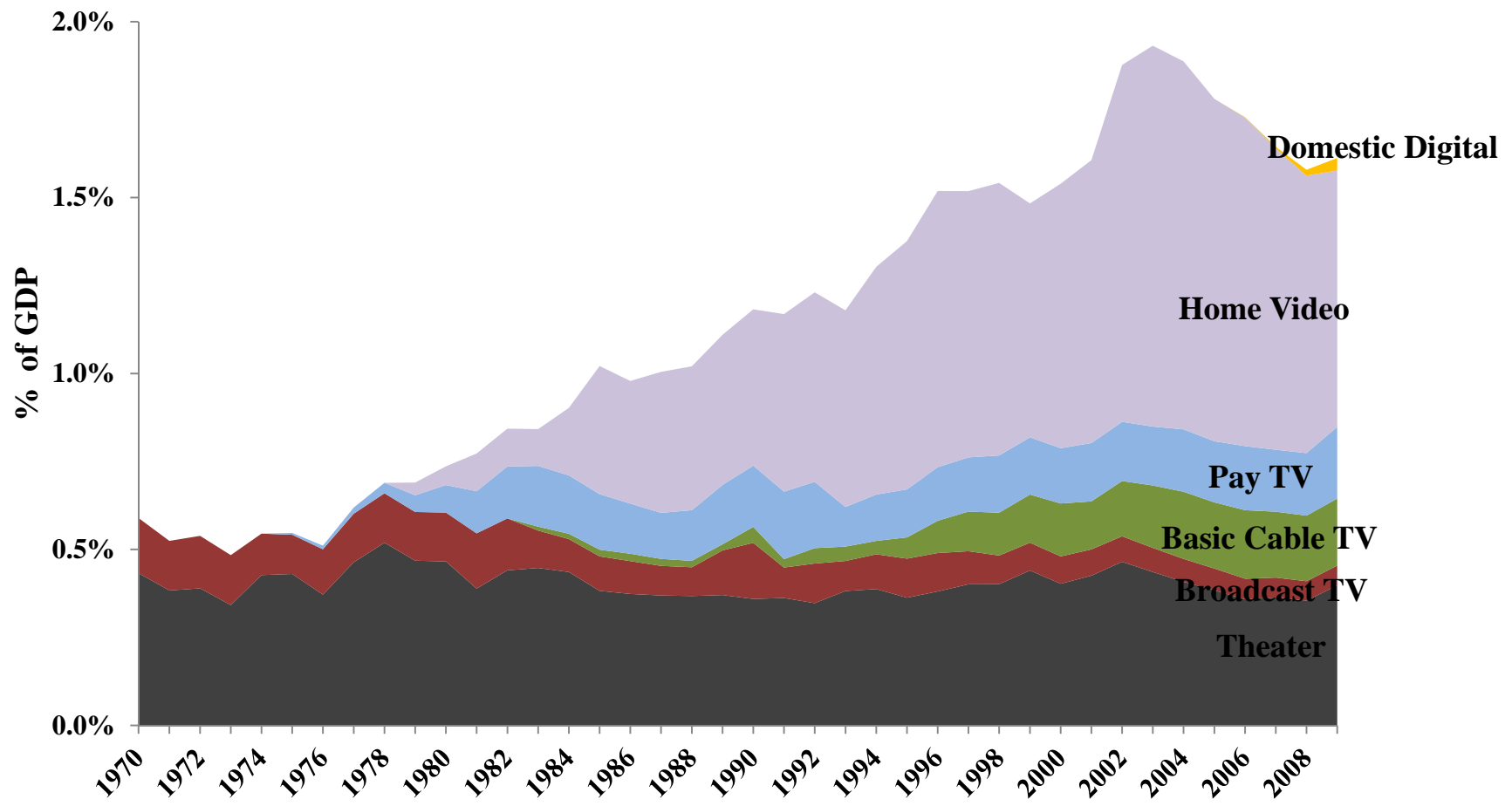


Drivers of the expansion

- ❑ **Distribution technologies--analog and digital**
 - Analog: broadcast/cable TV; VHS



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 - Analog: broadcast/cable TV; VHS
 - Digital: digital cable/DBS;HDTV; DVD/Blu-ray



Drivers of the expansion to mid-2000s

□ Distribution technologies--analog and digital

- Analog: broadcast/cable TV; VHS
- Digital: digital cable/DBS;HDTV; DVD/Blu-ray

□ Economic factors

- New media usually lower cost and/or higher quality--especially digital
- *Successful market segmentation and price discrimination by studios*



Release timing and pricing of theatrical features (2002-2005)

(1) Media	(2) Approx Window (after theatre release)	(3) Retail Price per Transaction (2002)	(4) Realized Retail Price per Viewing** (2002)
Theaters		\$5.81	\$5.81
Video sales	4-5 months	\$14.77	\$3.69
Video rentals	4-5 months	\$2.84	\$1.13
Home PPV/VOD	30-45 days after video	\$3.50-\$4.00	\$1.50
Subscription pay TV	1 year	\$7.64/mo	\$0.76
Basic cable TV	2-3 years	\$34.52/mo	\$0.46
Broadcast TV	2-3 years	\$0	\$0.00

Source: Waterman (2005); SNL Kagan (2006)

Drivers of the expansion to mid-2000s

❑ Distribution technologies--analog and digital

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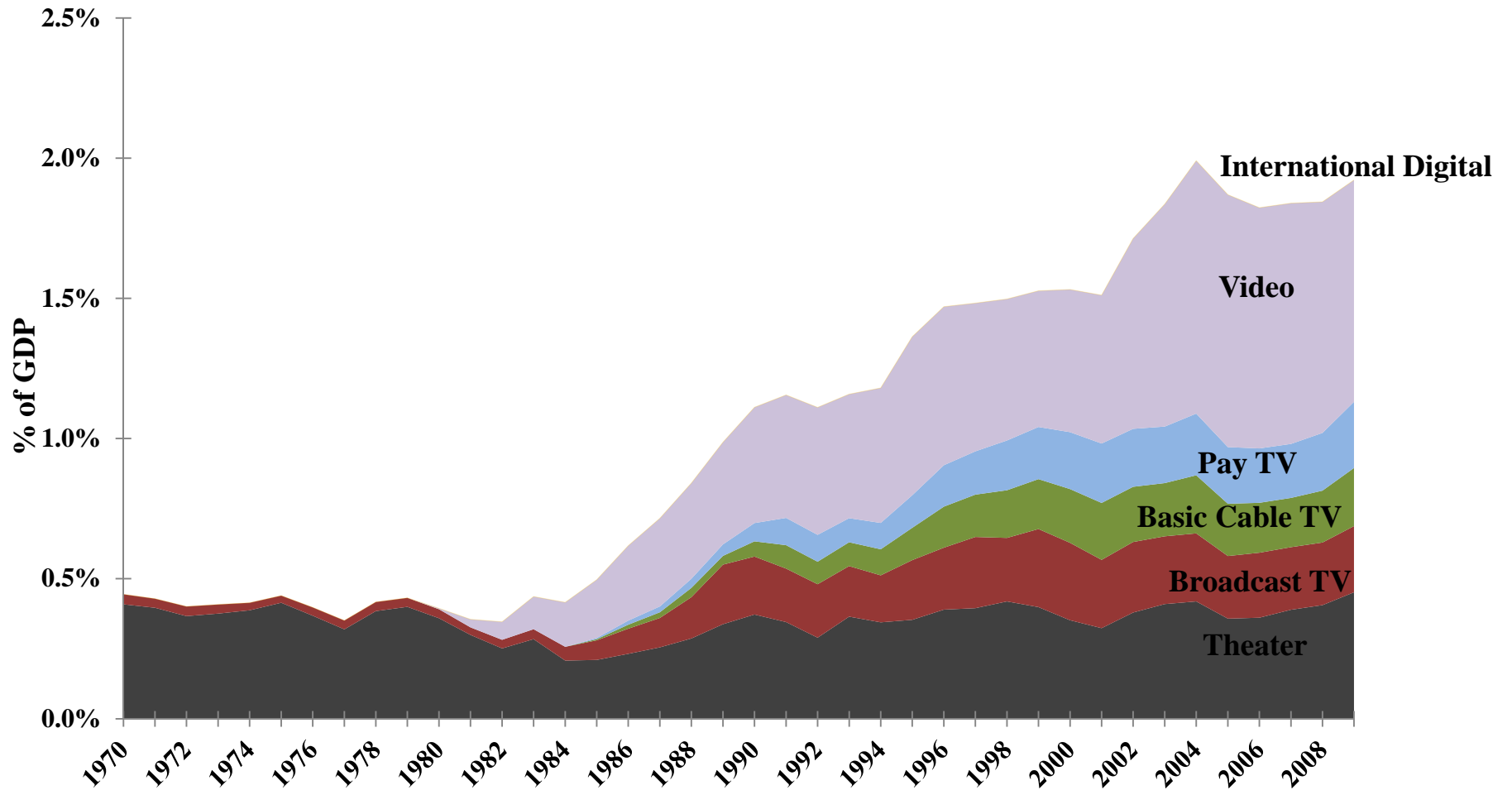
❑ Economic factors

- New media usually lower cost and/or higher quality--
especially digital
- Successful market segmentation and price discrimination by studios

❑ Result: stacking of media revenues over time



U.S. Movie Distributor Revenues*, Foreign Markets, as % GDP, 1970-2009



* Revenue from merchandise is not included.

Sources: Waterman (2005); SNL Kagan (2010)



Changes in Hollywood shares of European film markets over time

❑ Boxoffice market shares in European Markets

	U.S.-produced films	European-produced films
1968	35%	60%
2010*	68%	25%

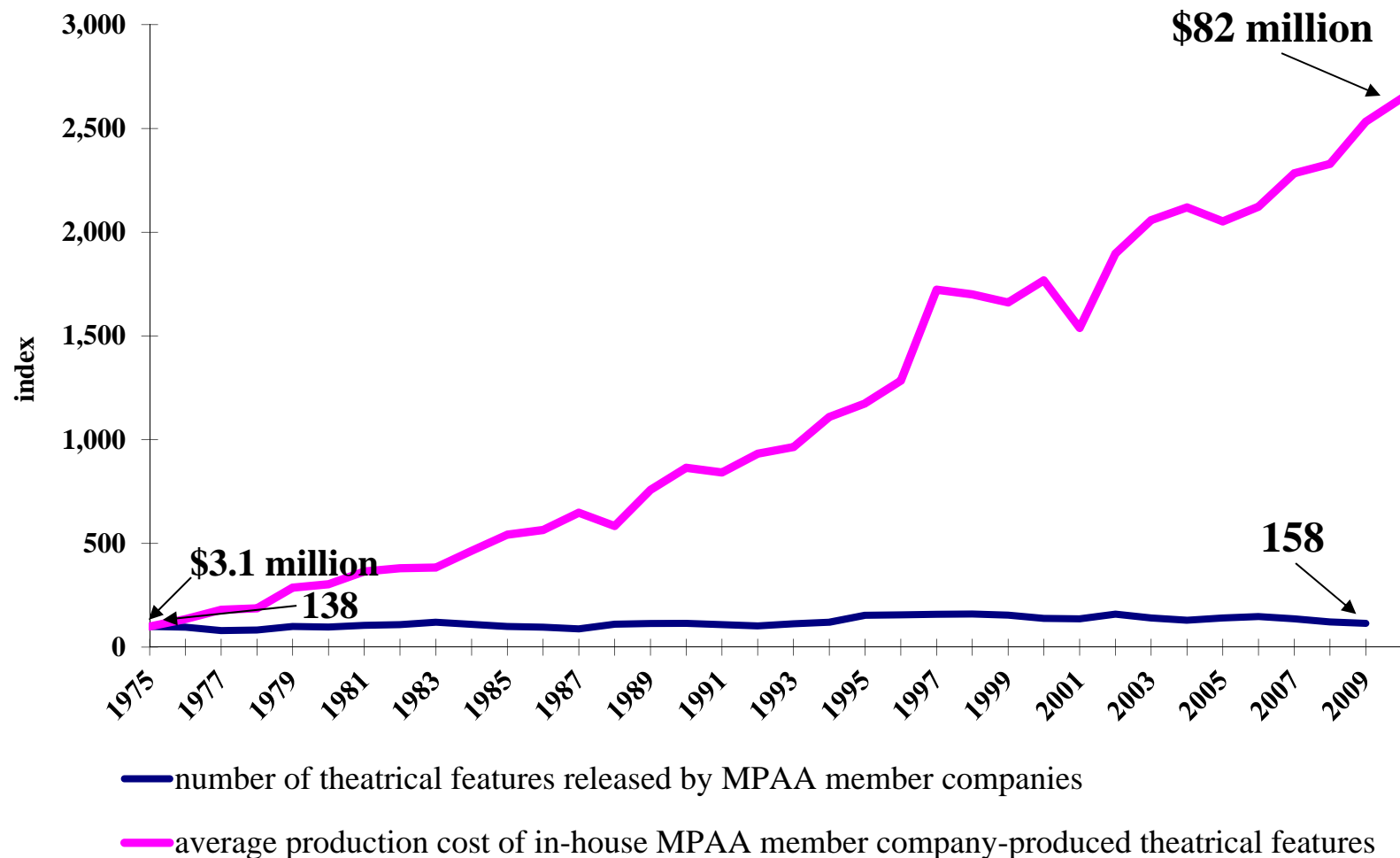
Sources: EU (1994); EAO (2011)

**not including European films with major US investment*

❑ A major reason: more rapid movie media development and higher movie spending per capita in U.S. since 1970s (Waterman, *Hollywood's Road to Riches*, Harvard U. Press, 2005)



Number of MPAA Releases and Average Production Cost per Movie: 1975-2010



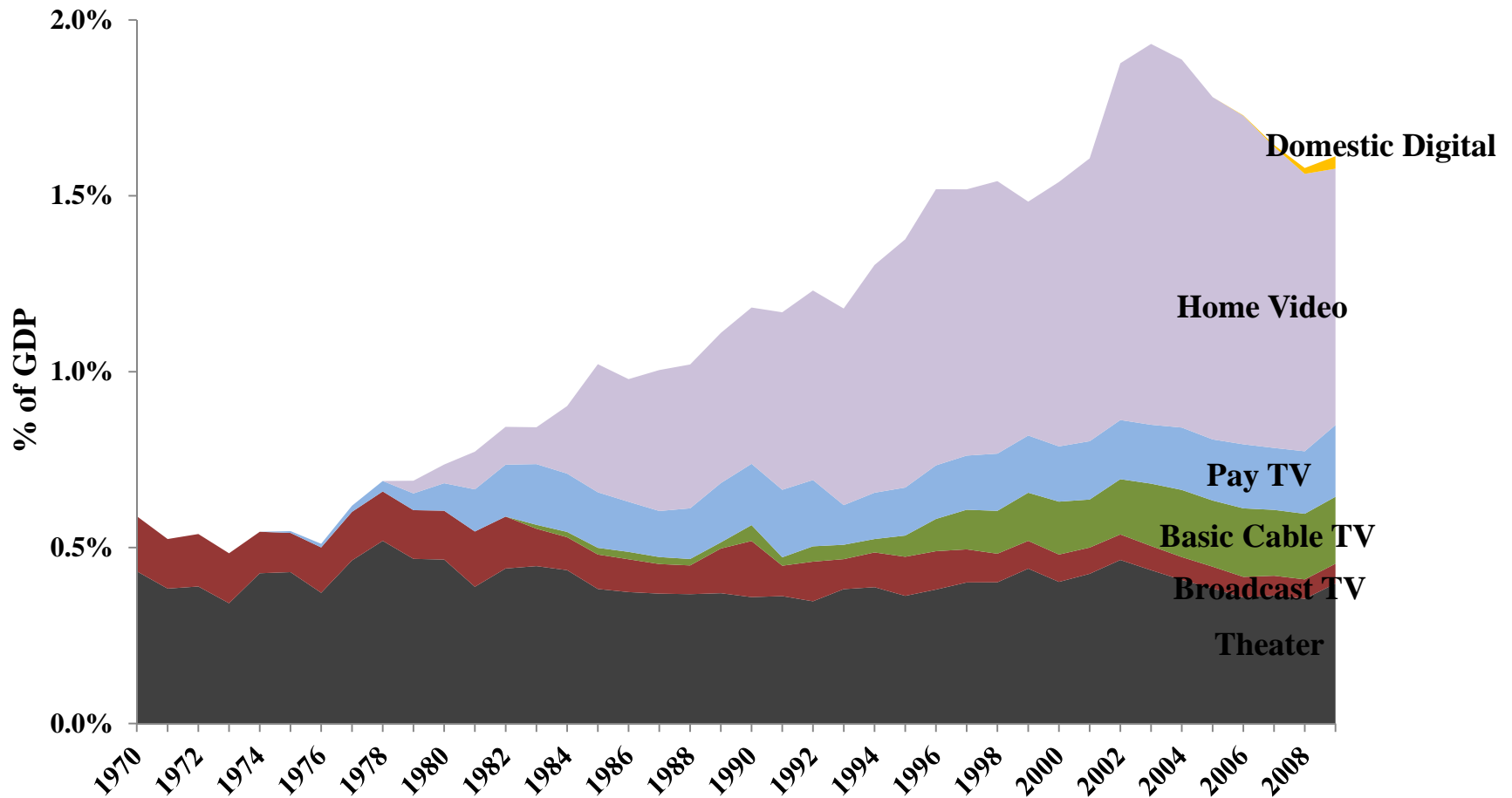
Sources: Waterman (2005); MPAA(2010); MPAA&BMO (2011)



The recent decline in U.S. studio revenues (Domestic market)



U.S. Movie Distributor Revenues*, Domestic Market, as % GDP, 1970-2009



* Revenue from merchandise is not included.

Sources: Waterman (2005); SNL Kagan (2010)

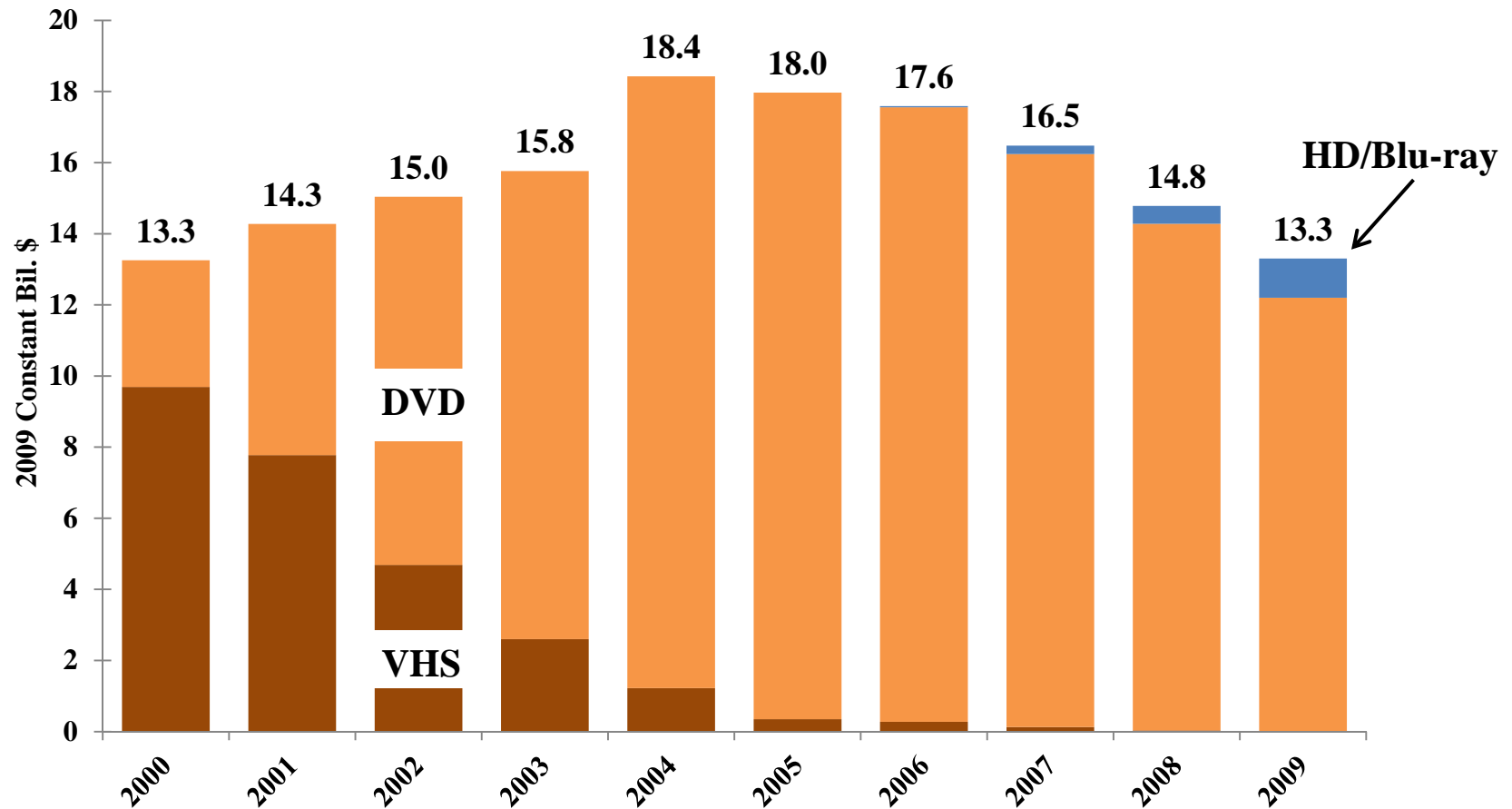


The recent decline in U.S. studio revenues (Domestic market)

- ❑ **Falling DVD revenues since 2004 the main factor**



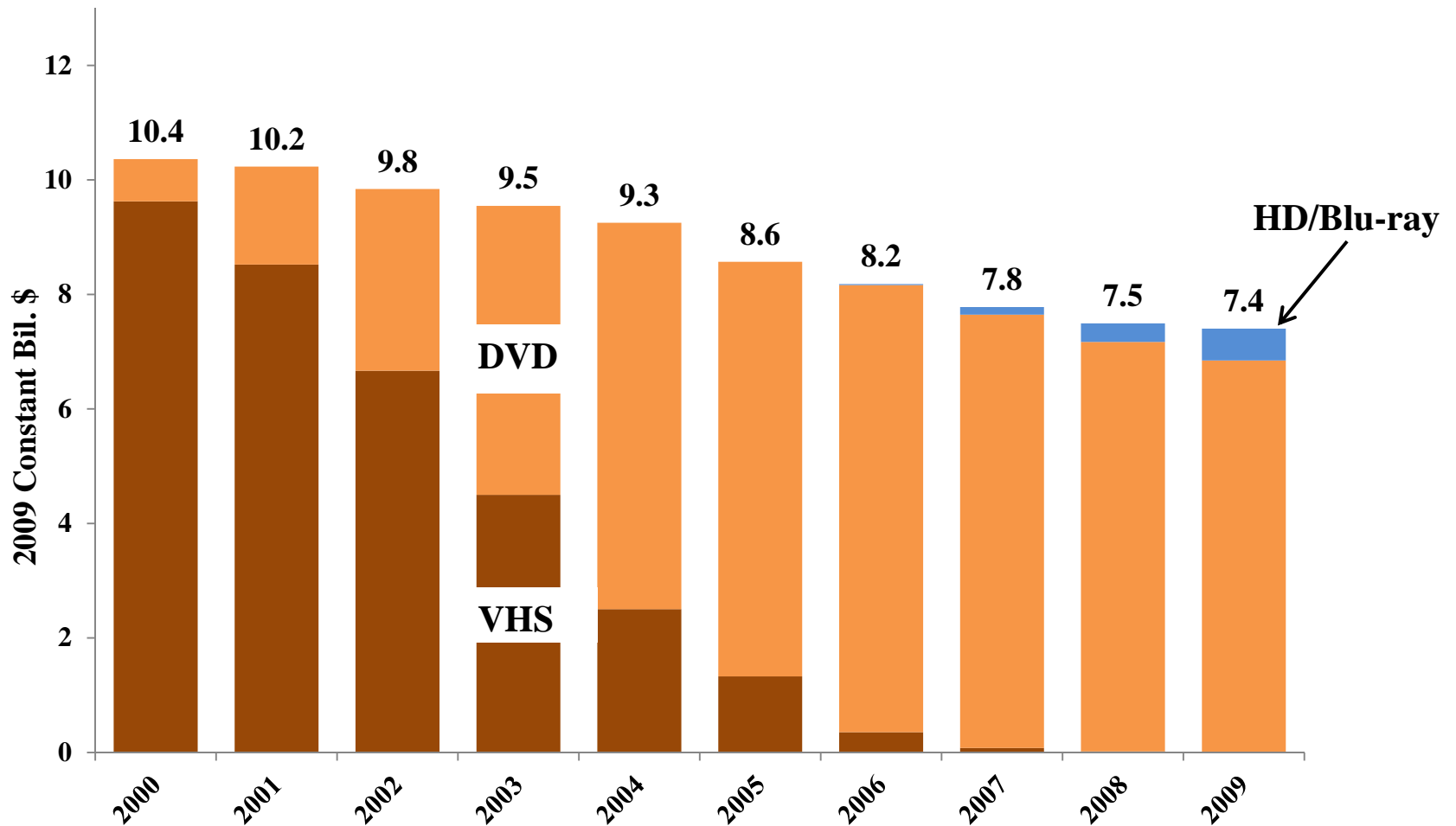
US home video retail sales spending, 2000-2009 (constant 2009 \$):



Sources: derived from SNL Kagan (2010)



US video rental spending by format,*2000-2009 (constant 2009 \$)



Sources: derived from SNL Kagan (2010)

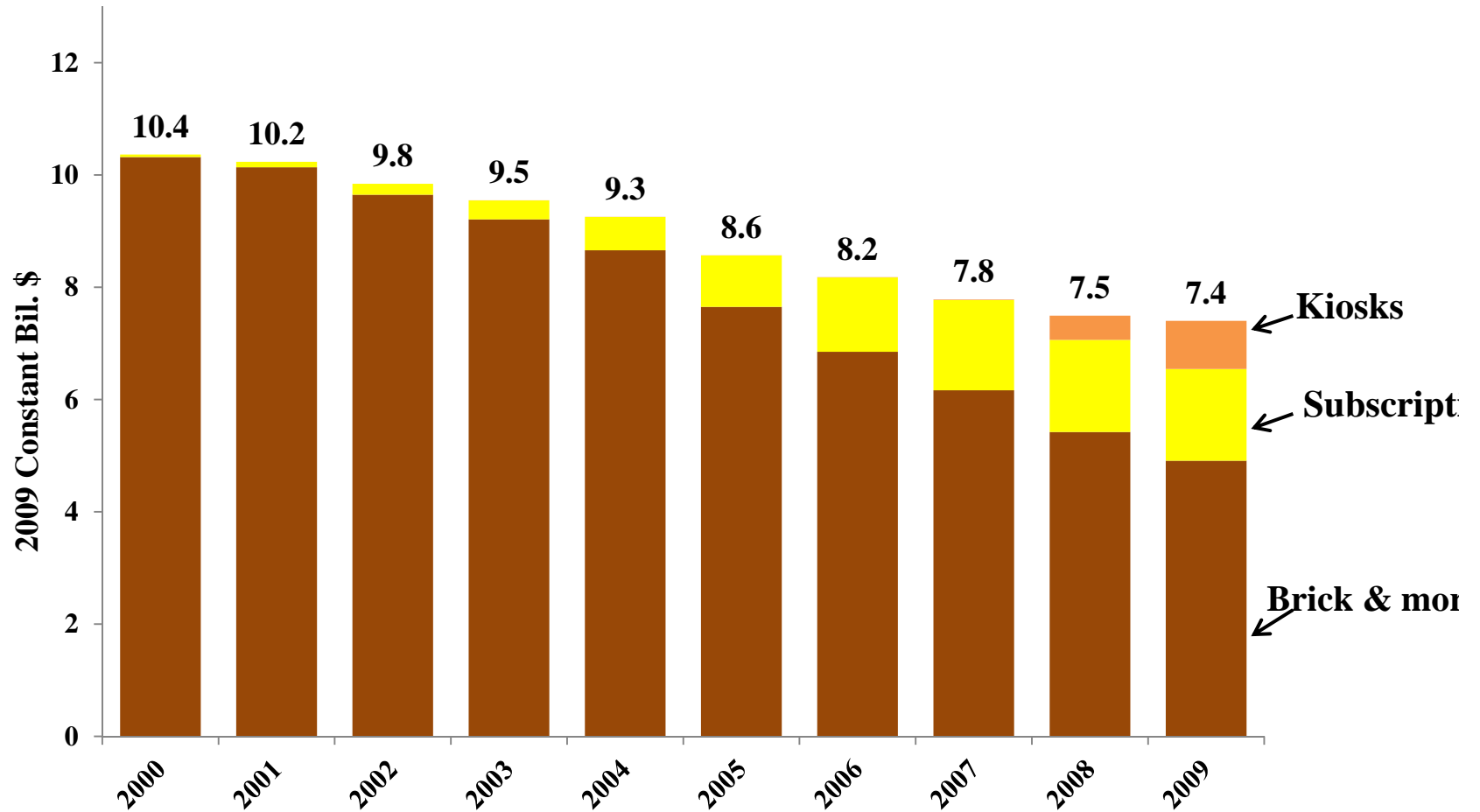


The recent decline in U.S. studio revenues (Domestic market)

- ❑ **Falling DVD revenues since 2004 the main factor**
 - Mainly sales (some rise in Blu-Ray)
 - Slower decline in rentals (28% vs. 20%)



US home video rental spending by retail type, 2000-2009: (constant 2009 \$):



Sources: derived from SNL Kagan (2010)



The recent decline in U.S. studio revenues (Domestic market)

❑ Falling DVD revenues since 2004 the main factor

- Mainly sales (some rise in Blu-Ray)
- Slower decline in rentals
- Growth in subscription (Netflix), Kiosks (Redbox)



Reasons for the DVD decline

❑ Piracy

- **Several economic studies, mixed results**
- **Cannot explain most of the decline**
 - Worst decline is sales
 - Relatively successful MPAA anti-piracy efforts

❑ **“We believe consumers are simply not interested in owning content anymore” –Richard Greenfield, BTIG**

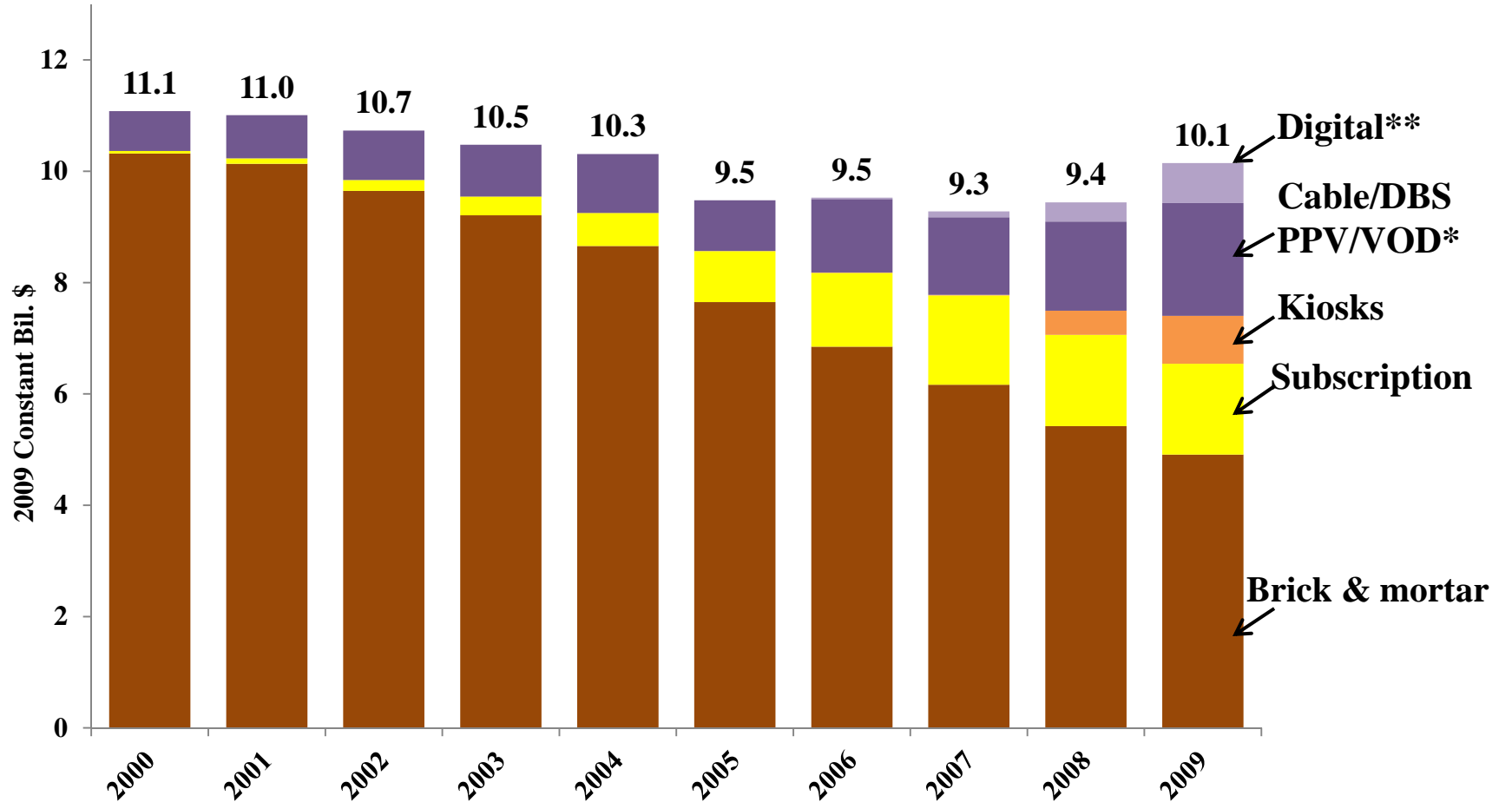
- **Implies evaporation of a very high value market (85% margin for studios)**

or...

❑ **Consumer substitution toward relatively low priced rental/IPTV movies**



Total electronic a la carte spending, 2000-2009 (constant 2009 \$)



* PPV/VOD spending = U.S. motion picture distributor revenues from PPV/VOD × 2

** Digital spending = U.S. motion picture distributor revenue from Digital ÷ 0.7

Sources: derived from SNL Kagan (2010)



Cost reduction in a la carte movie distribution

“Brick & mortar” DVD rental (2002) vs. Online “rental” (2010)

	Rental price	Studio share*
2002	\$3.25	33%
2010	\$4.41	70%

* Before duplications/distribution cost

Sources: author calculations from SNL Kagan and Adams Media data



Prospects

- ❑ **The studio copyright dilemma (“First Sale Doctrine”)**

...but

- ❑ **Generally robust demand for movies**
- ❑ **A direct pricing model that works**
- ❑ **Lower costs mean expanding markets in long term**

