Digital Transition in the U.S.

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Focus

- ❑ **Part of a broader project on digital transition in the US involving 10 media**
- ❑ **A long term historical perspective**
- ❑ **Professionally produced copyrighted commercial media products**
- ❑ **Individual media focus: television**

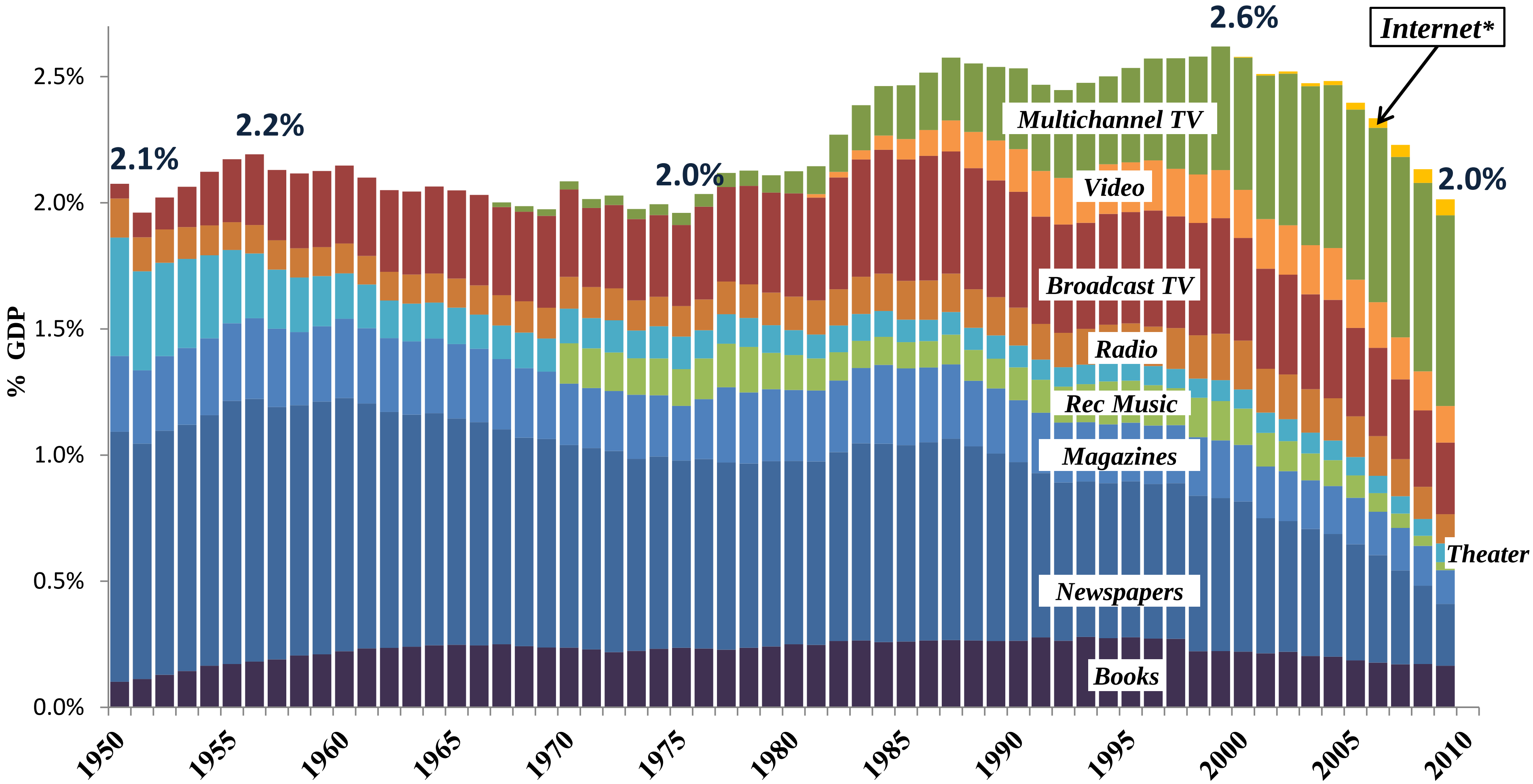
Questions

- **How are online media affecting…**
  - media industry revenues and employment?
  - the balance of advertiser vs. direct pay support?
  - the quality and variety of media products (production investment)?
    ….**or**….is offline + online media a negative or positive sum game?
    - in theory, could be + or --

Overview

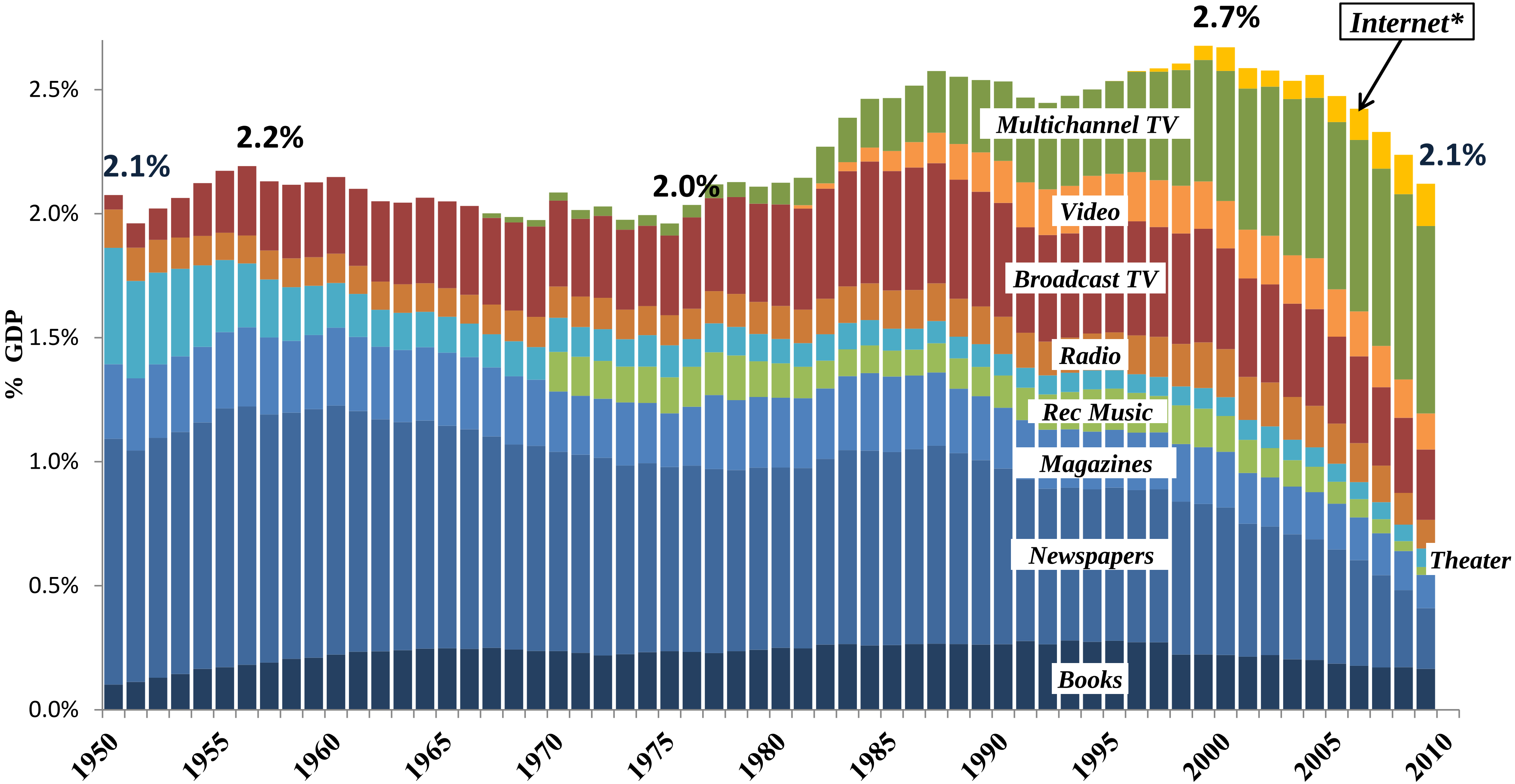
- **Overall, media revenues (as a % of GDP) steadily declining since about 2000**
- **An increasing shift toward direct pay support**
- **Several possible reasons for trends *(consumer time use, IP protection, business models, greater efficiency)***
- **The television case:**
  - **relatively robust, but flattening revenue and production investment**
  - **headed for decline?**

Total Revenue of US Commercial Media, as % of GDP 1950-2009.



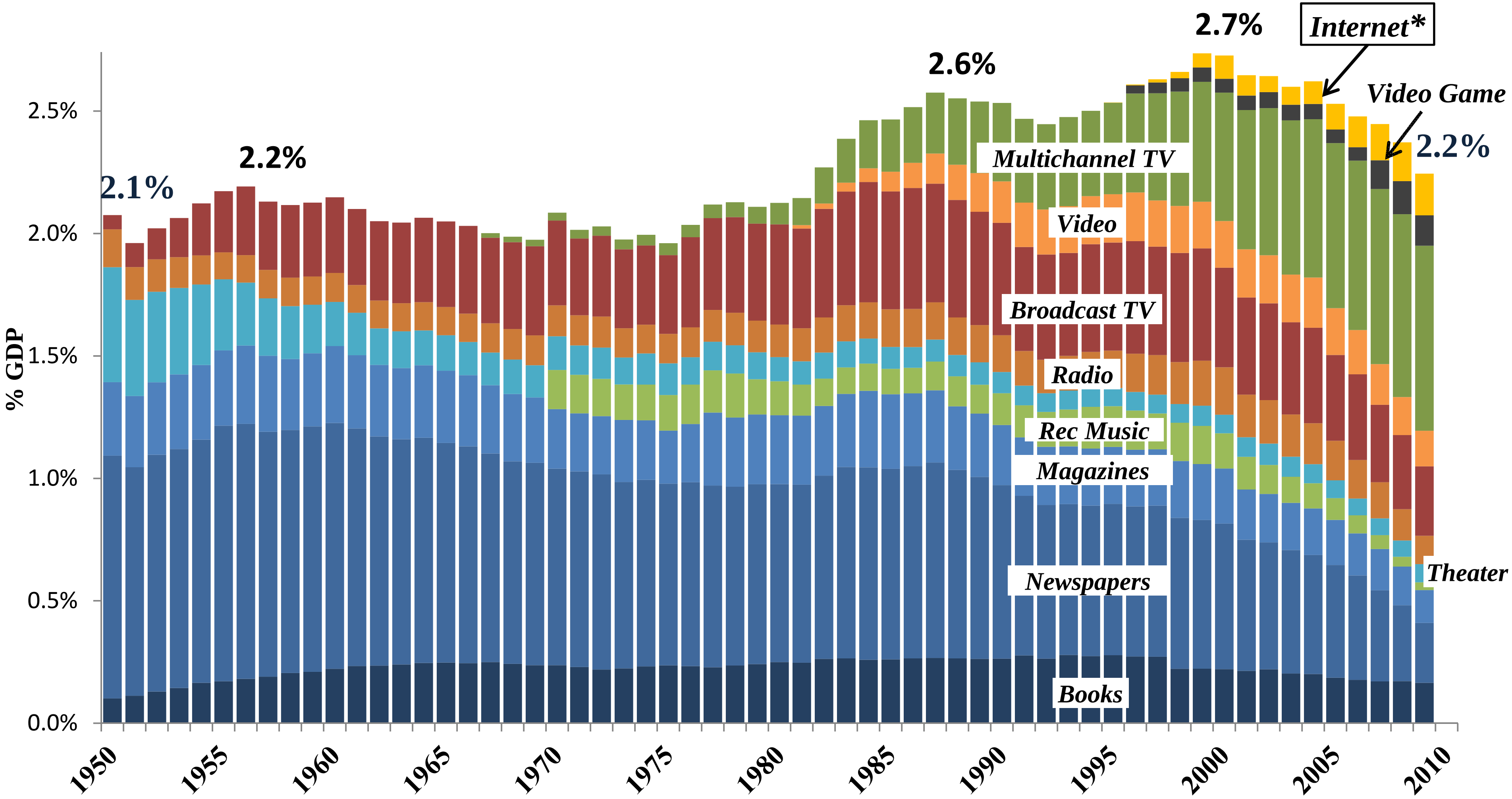
** includes: newspaper websites; digital music/movies; television station/network websites; Internet radio; e-books*
Sources: U.S. Census; trade associations; industry analysts; 10-K reports; author estimations
Preliminary data (Waterman/Ji, March, 2011)

Total Revenue of US Commercial Media as % of GDP: 1950-2009 (*Internet upper bound**)



** includes all Internet advertising except search and e-mail + all Internet Publisher revenues exc. adv. (US Census)*
Sources: U.S. Census; trade associations; industry analysts; 10-K reports; author estimations
Preliminary data (Waterman/Ji, March, 2011)

Total Revenue of US media as % of GDP, 1970-2009. (Internet upper bound; inc. video games)



Sources: U.S. Census; trade associations; industry analysts; 10-K reports; author estimations
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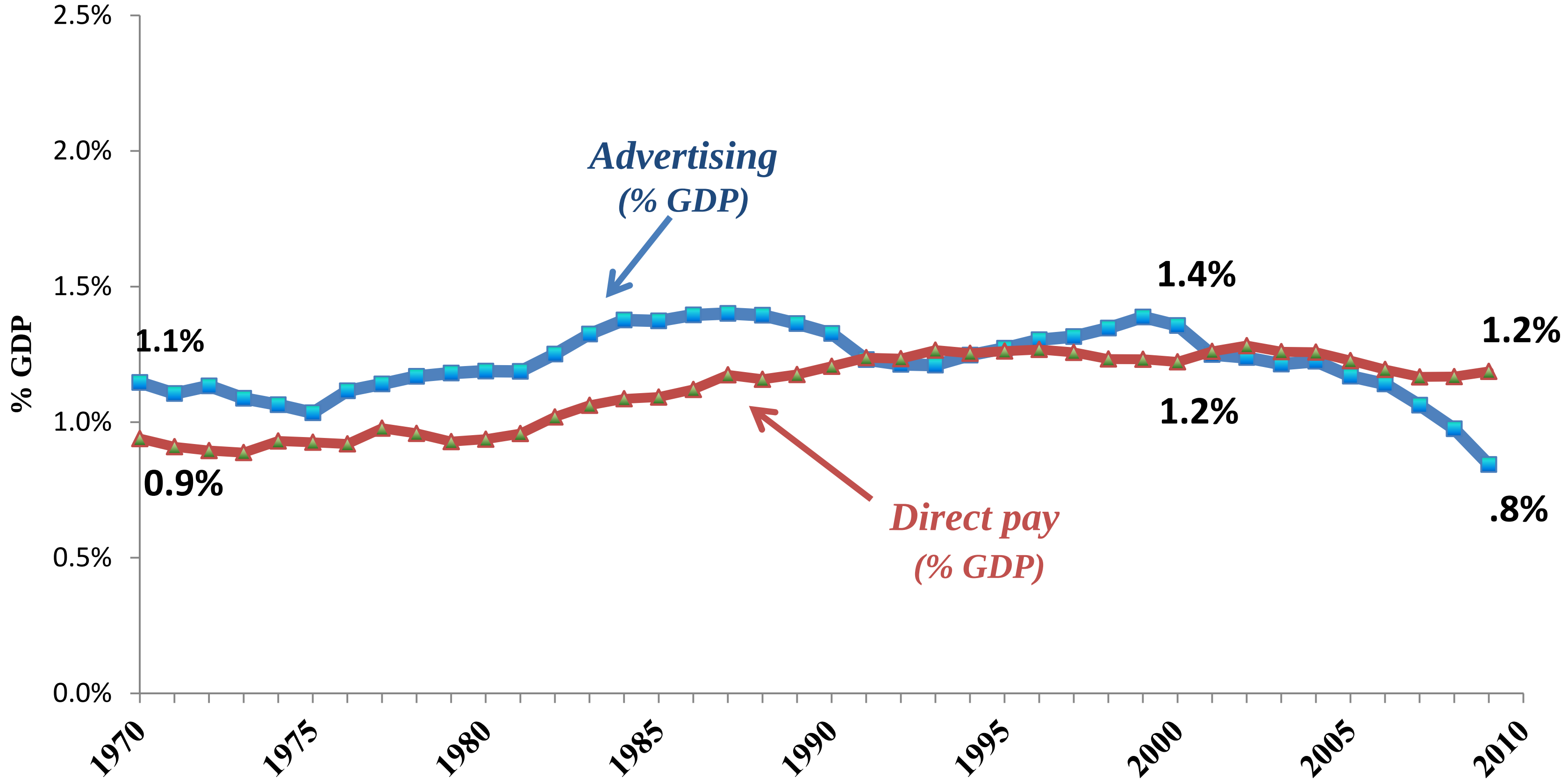
Advertising vs. Direct Pay Support as % of GDP: All US Media, 1970-2009



Sources: U.S. Census; trade associations; industry analysts; 10-K reports; author estimations
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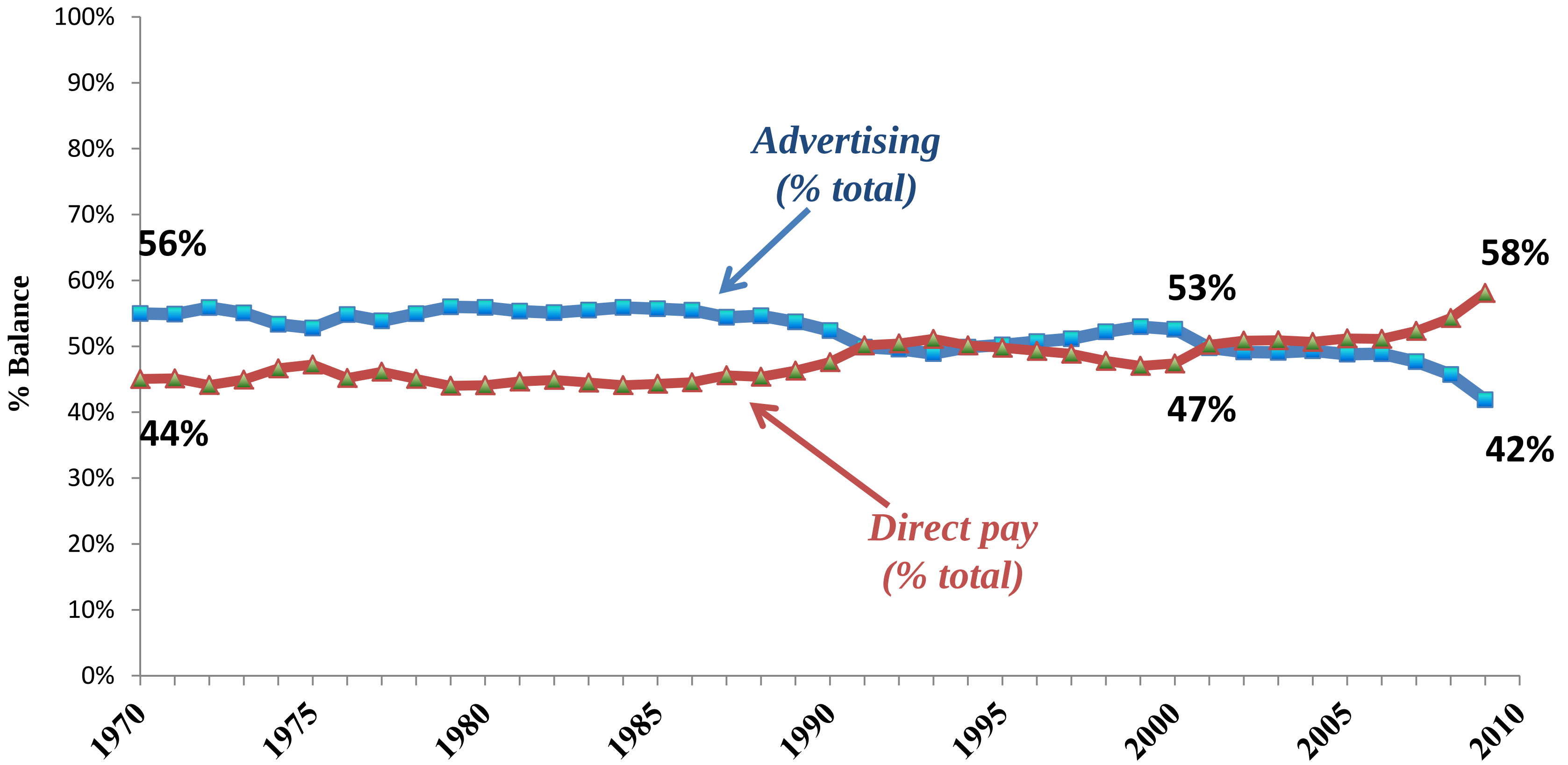
Advertising vs. direct Pay Support: % Balance All US Media, 1970-2009



Sources: Sources: U.S. Census; trade associations; industry analysts; 10-K reports; author estimations
Preliminary data (Waterman/Ji, March, 2011)

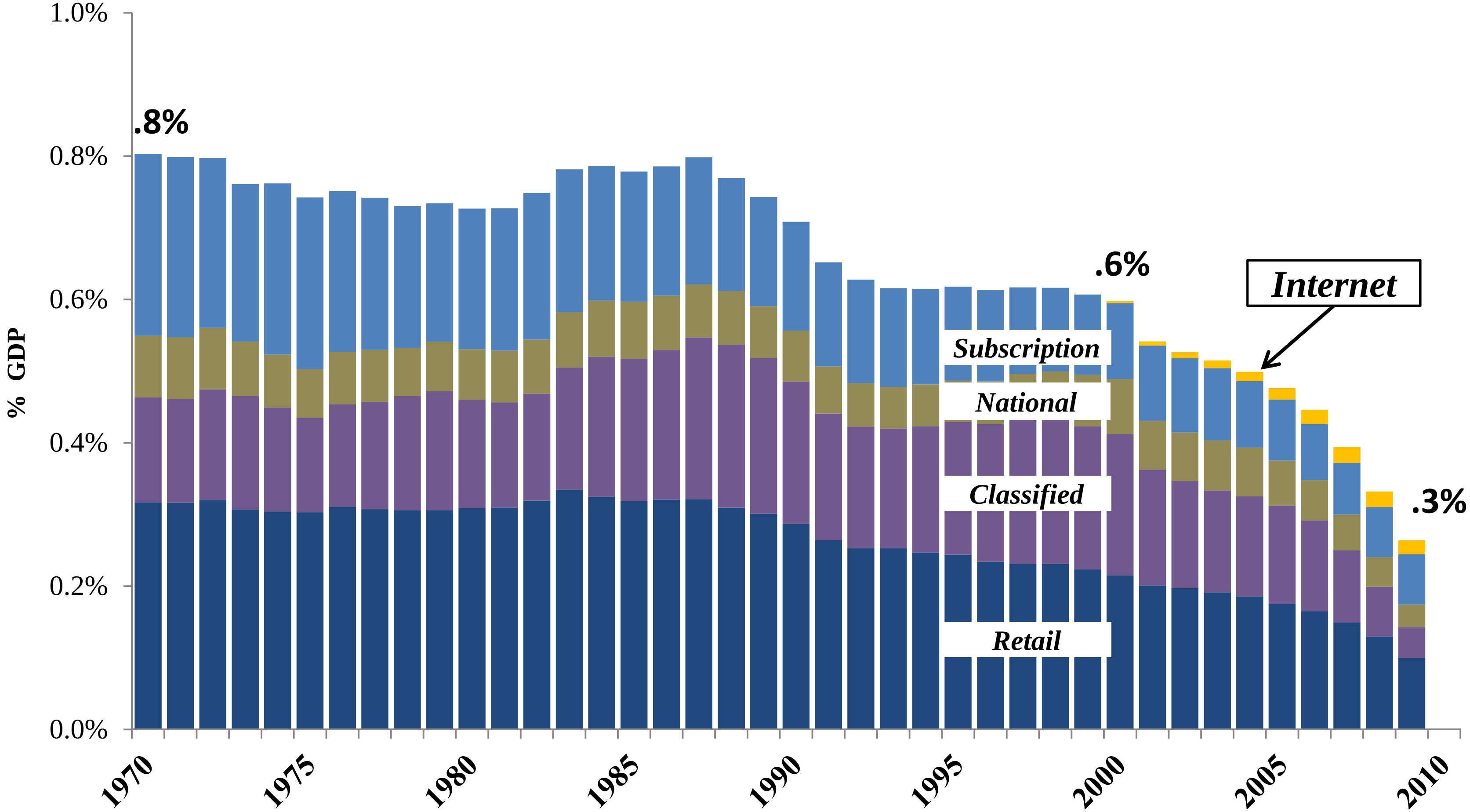
Overall statistical summary

- Steady fall in media revenues as % of GDP since 2000

- A shift toward direct pay support, especially since 2000

- A closer look at individual media

Newspapers: Total Revenue by Category as % GDP, 1970-2009



Sources: U.S. Census; trade associations; industry analysts; 10-K reports; author estimations
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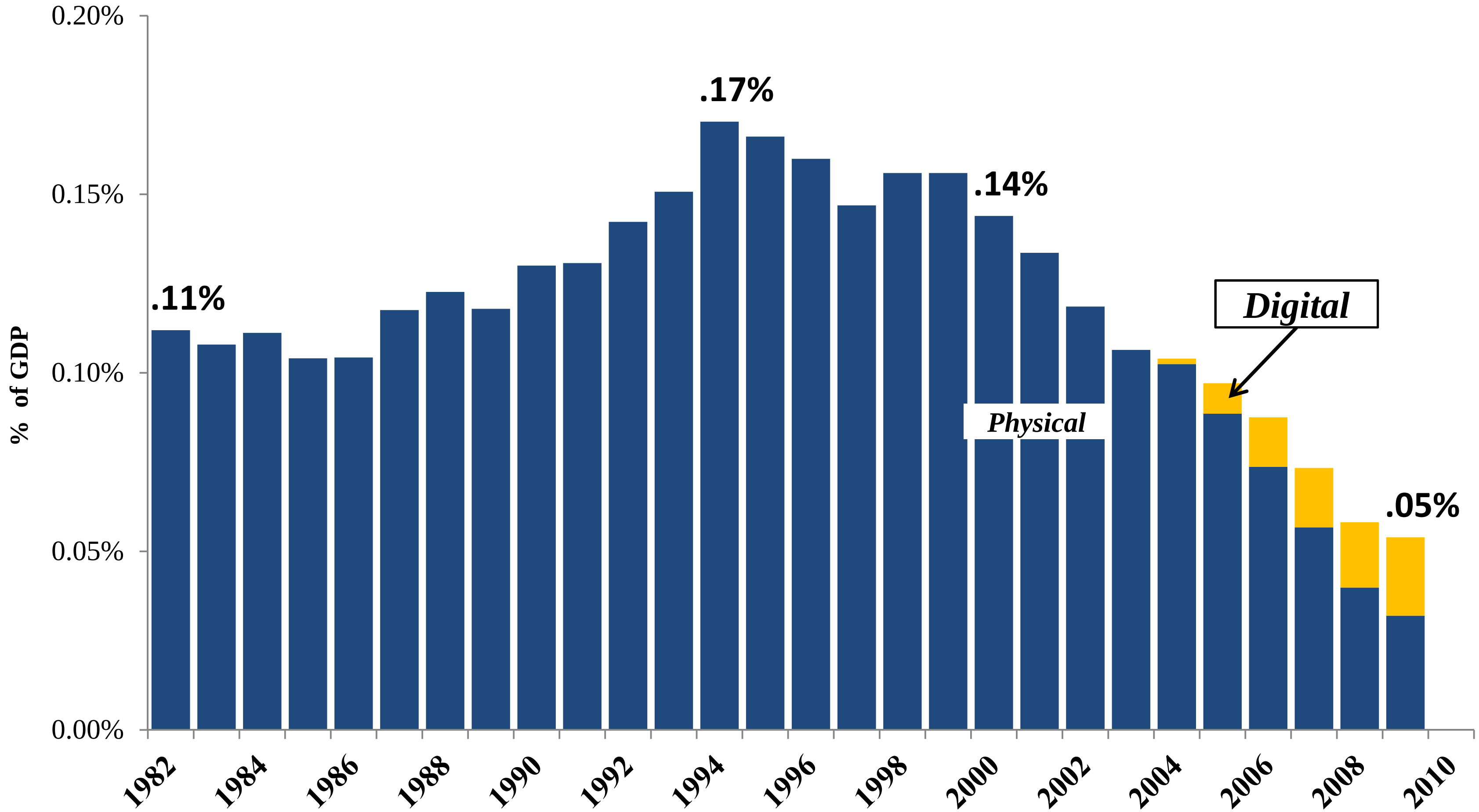
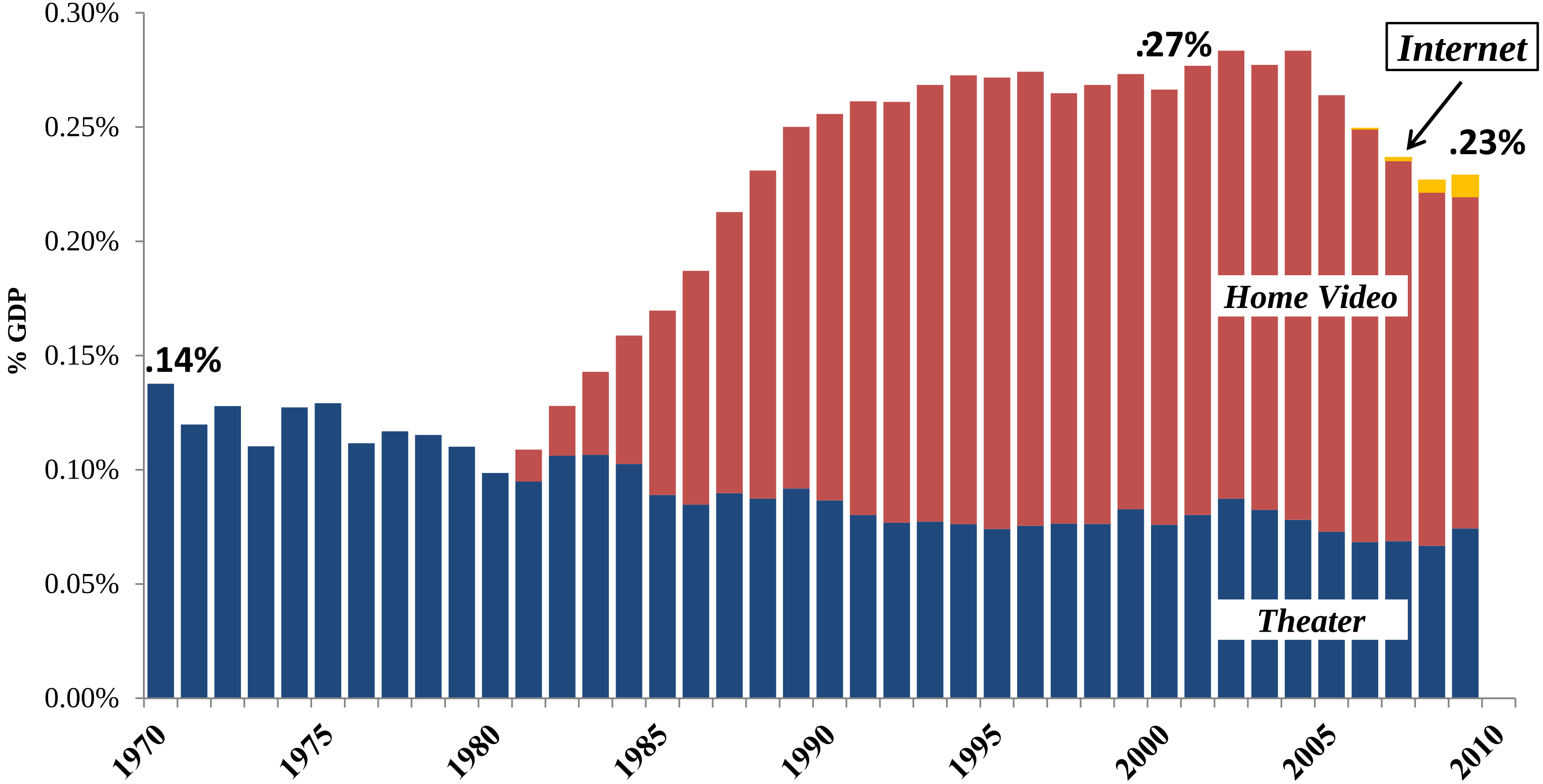
Part I

Recorded Music: Total revenue by category as % GDP, 1982-2009



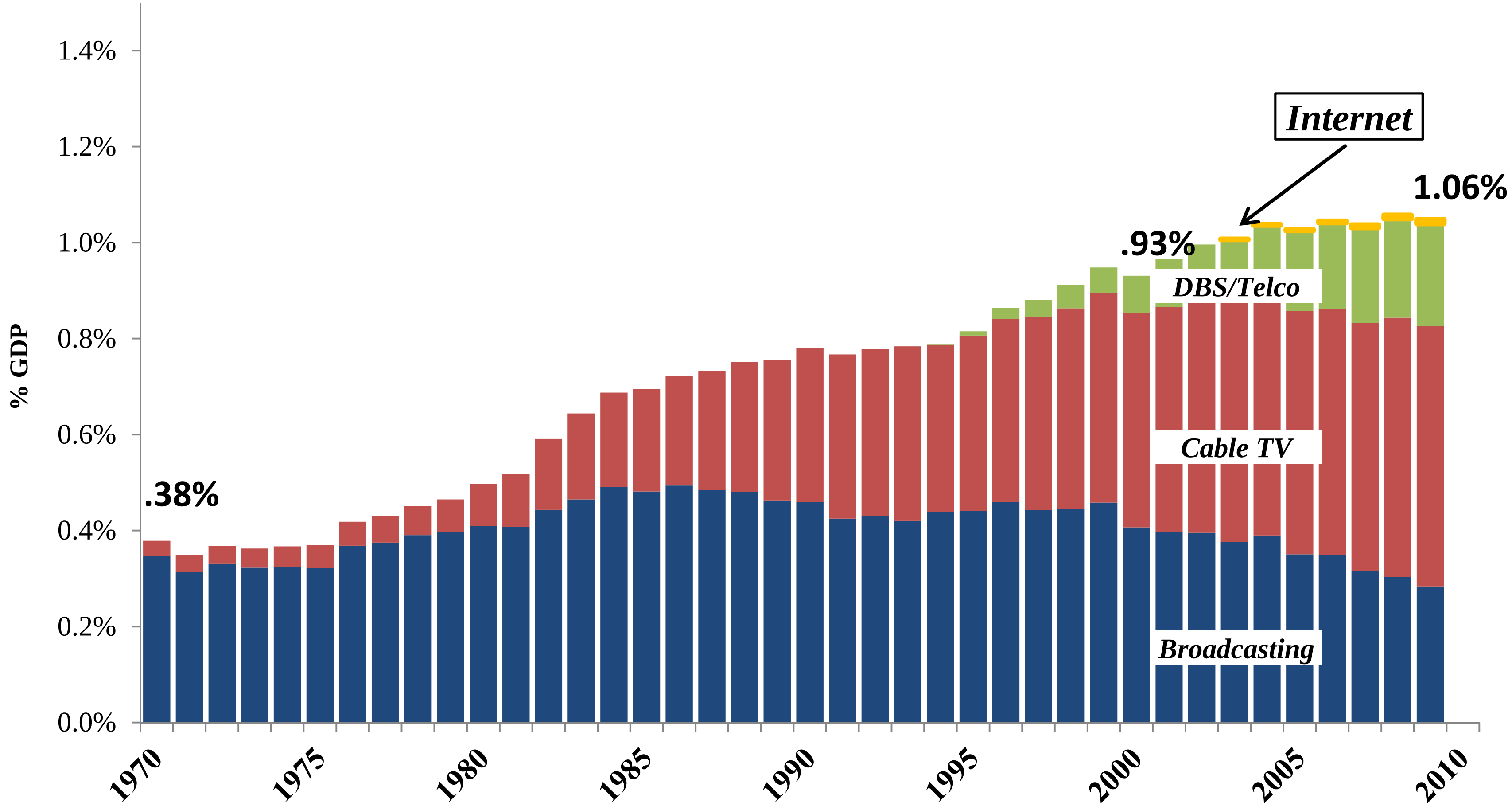
Sources: U.S. Census; trade associations; industry analysts; 10-K reports; author estimations
Preliminary data (Waterman/Ji, March, 2011)

Movie Theaters/Home Video: Total Rev. by Category as % of GDP, 1970-2009



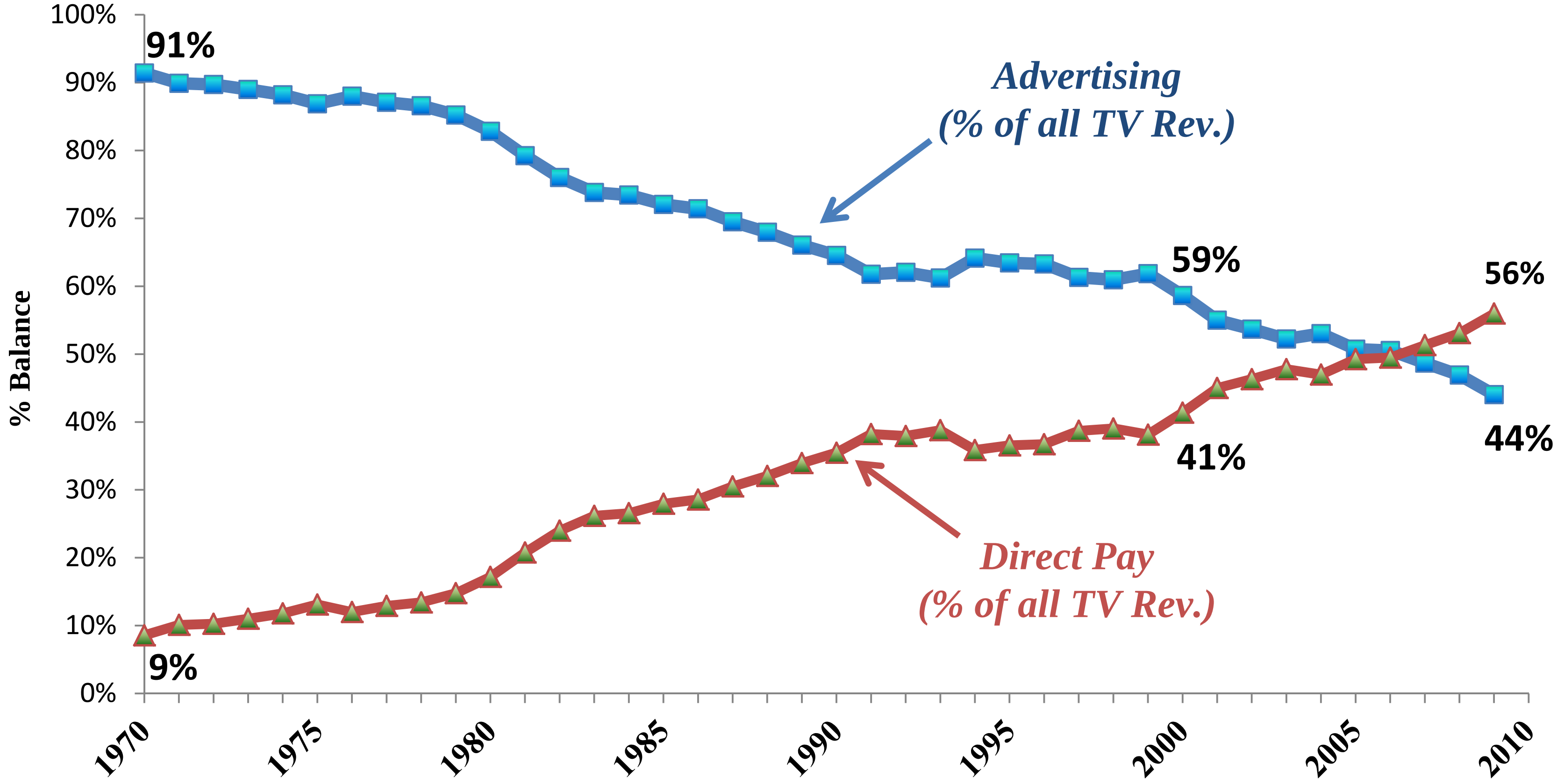
Sources: U.S. Census; trade associations; industry analysts; 10-K reports; author estimations
Preliminary data (Waterman/Ji, March, 2011)

Television: Total Revenue by Category, as % of GDP, 1970-2009



Sources: U.S. Census; trade associations; industry analysts; 10-K reports; author estimations
Preliminary data (Waterman/Ji, March, 2011)

Advertising vs. direct pay support % balance: Television, 1970-2009



Sources: U.S. Census; trade associations; industry analysts; 10-K reports; author estimations
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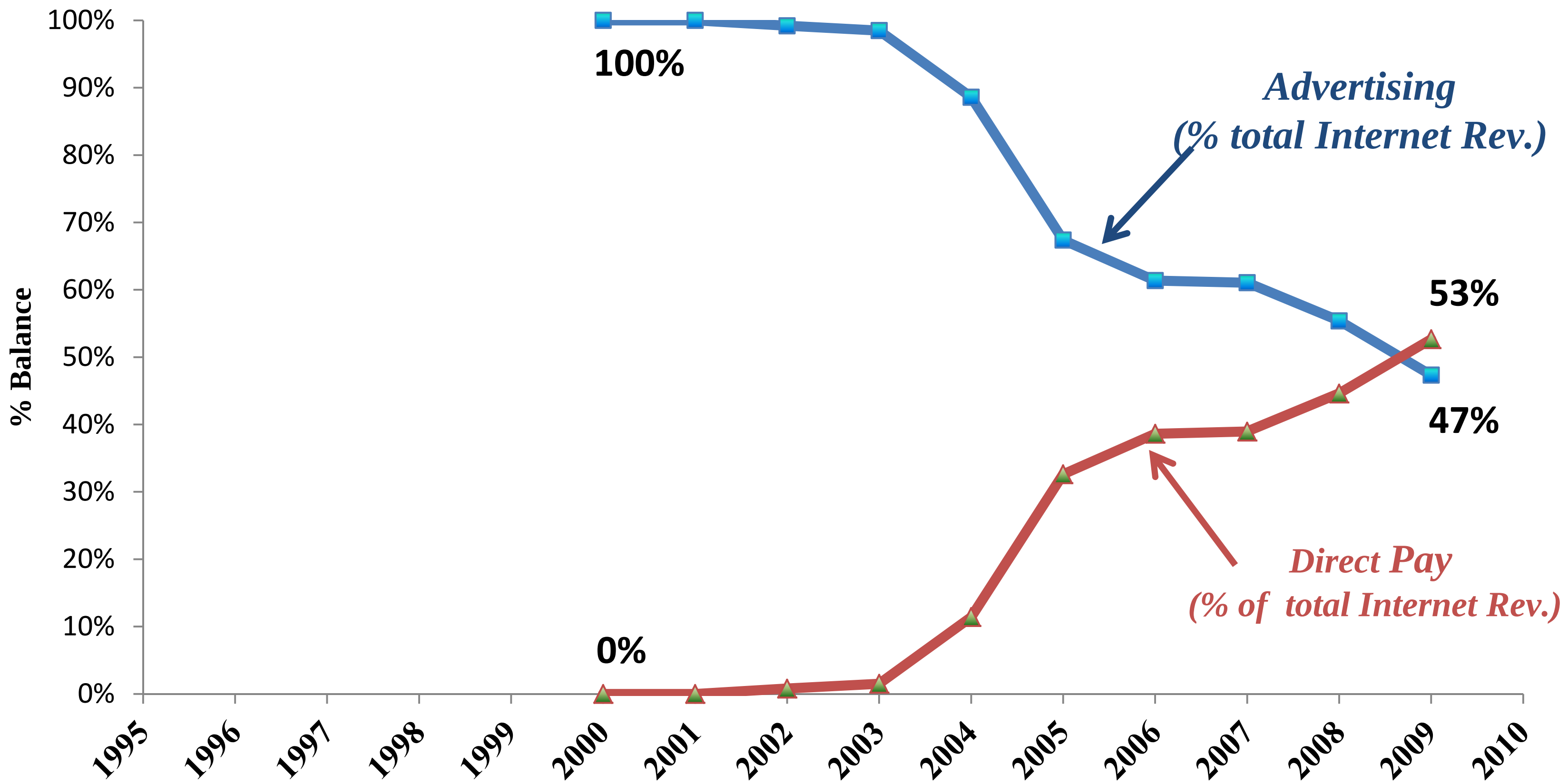
Advertising vs. Direct Pay Support: % Balance: All Internet Media*, 2000-09



**Internet "lower bound"*
Sources: U.S. Census; trade associations; industry analysts; 10-K reports; author estimations
Preliminary data (Waterman/Ji, March, 2011)

Statistical summary

- **Steady fall in media revenues as % of GDP since 2000**

- **A shift toward direct pay support, especially since 2000**

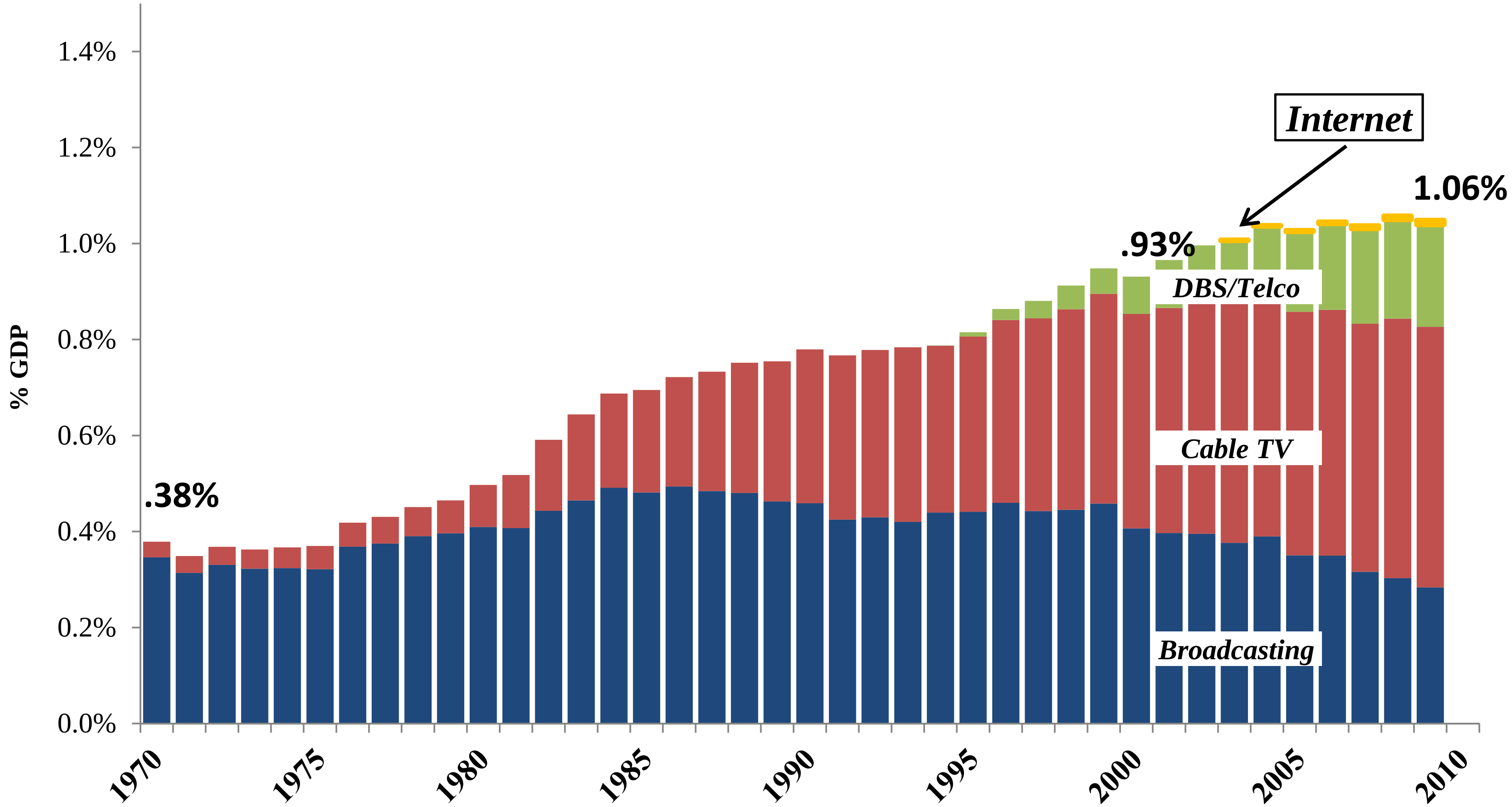
- **Major individual media since about 2000**
  - Revenues mostly falling; television robust but flattening
  - Shift toward pay support, including TV and online media as a whole

Four possible reasons for the recent media trends

1) **Consumers turning away from professional media**
   - Time use studies suggest not a major factor overall
2) **More difficult IP protection**
   - Significant at least in music, news, movies
3) **Online business model shortcomings**
   - Advertising faltering, but not direct support
4) ***Internet distribution is cheaper, more efficient***
   - Examples: movies, news
   - Bottom line is production investment—not revenues

The television case

Television: Total Revenue by Category, as % of GDP, 1970-2009

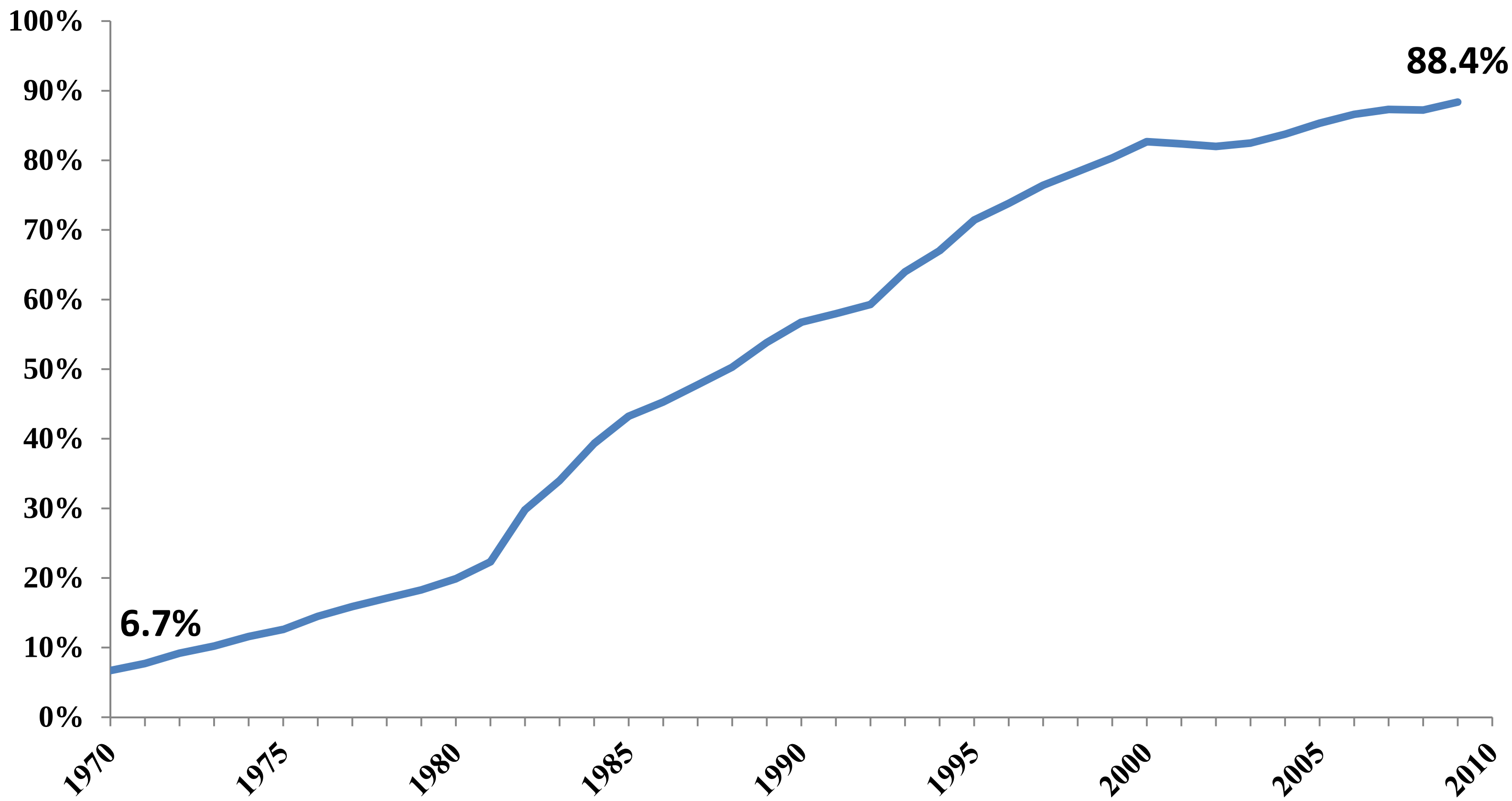


Sources: U.S. Census; trade associations; industry analysts; 10-K reports; author estimations
Preliminary data (Waterman/Ji, March, 2011)

The television case

- ❑ **Drivers of robust economic performance to date**
  - ➢ **Continuous conversion from free broadcast to pay TV**

U.S. MVPD (Cable, DBS...) Subscribers as a % of U.S. TV HH: 1970-2009

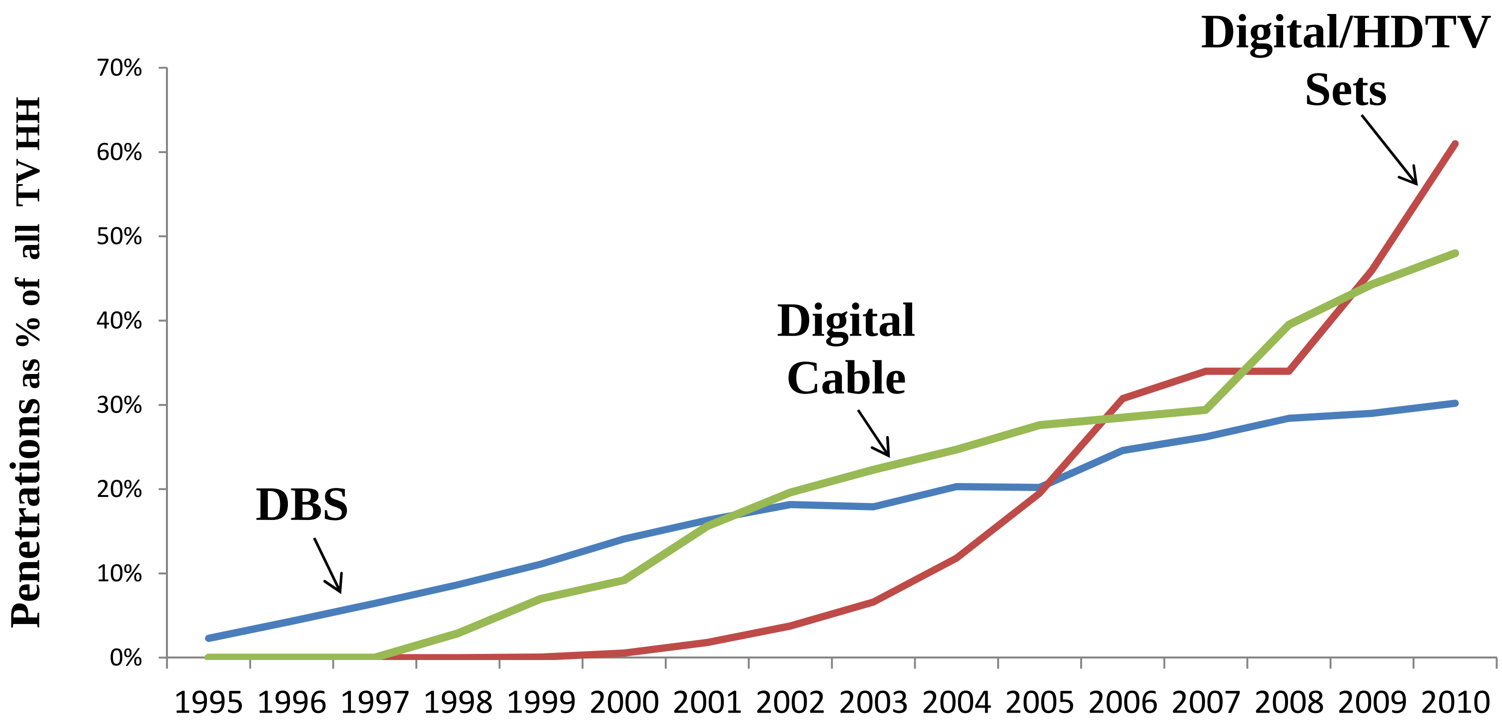


Sources: U.S. Census Bureau; FCC (1998); NCTA; SNL Kagan (2001 & 2007)

The television case

- **Drivers of robust economic performance to date**
  - **Continuing conversion from free broadcast to pay TV**
  - **Analog → digital (digital cable, DBS)**

Figure 2: Digital TV Transitions

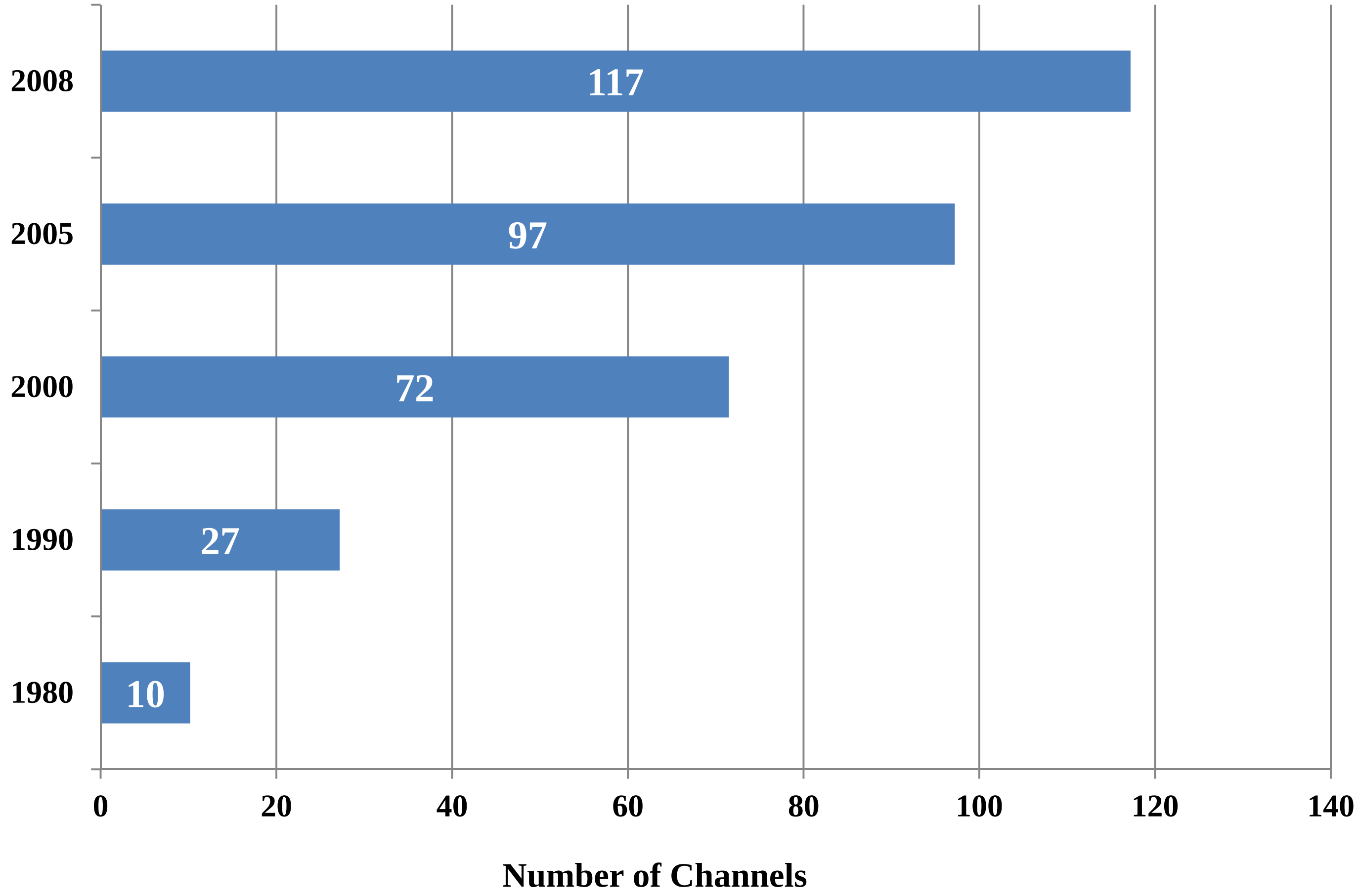


Sources: SBCA, GMID-Global Market Information Database, MPAA, NCTA, SNL Kagan, TVB, Nielsen, Leichtman research

The television case

- **Drivers of robust performance to date**
  - **Continuing conversion from free broadcast to pay TV**
  - **Analog → digital, especially cable/DBS**
    - Cheaper, higher quality

Average Number of Channels per U.S. TV Home



Source: Authors’ compilation from *TV Dimensions (2009*)

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The television case

- **Drivers of robust performance to date**
  - **Continuing conversion from free broadcast to pay TV**
  - **Analog → digital, especially cable/DBS**
    - Cheaper, higher quality
    - More efficient pricing

Comcast Cable TV Tier Pricing - Bloomington, IN, 2011

Packages	Number of Channels	Price per month**
Basic	21	$19.99
Digital Economy	43	$39.95
Digital Starter*	178	$64.99
Digital Preferred*	243	$81.94
Digital Premier*	295	$137.00

* **158 HD Channels** are available from Digital Starter with HD Box($8/month)
** published full rates after 2 years; reduced rates for some packages for first 2 years;

Source: Comcast website, Program Lineup by Zip code: 47401, Consult with customer center

The television case

- **Drivers of robust performance to date**
  - **Continuing conversion from free broadcast to pay TV**
  - **Analog → digital, especially cable/DBS**
    - Cheaper, higher quality
    - More efficient pricing
  - **Rising TV use**
    - Early 1970s: 43 hrs./HH/week
    - Late 2000s: 57 hrs./HH/week

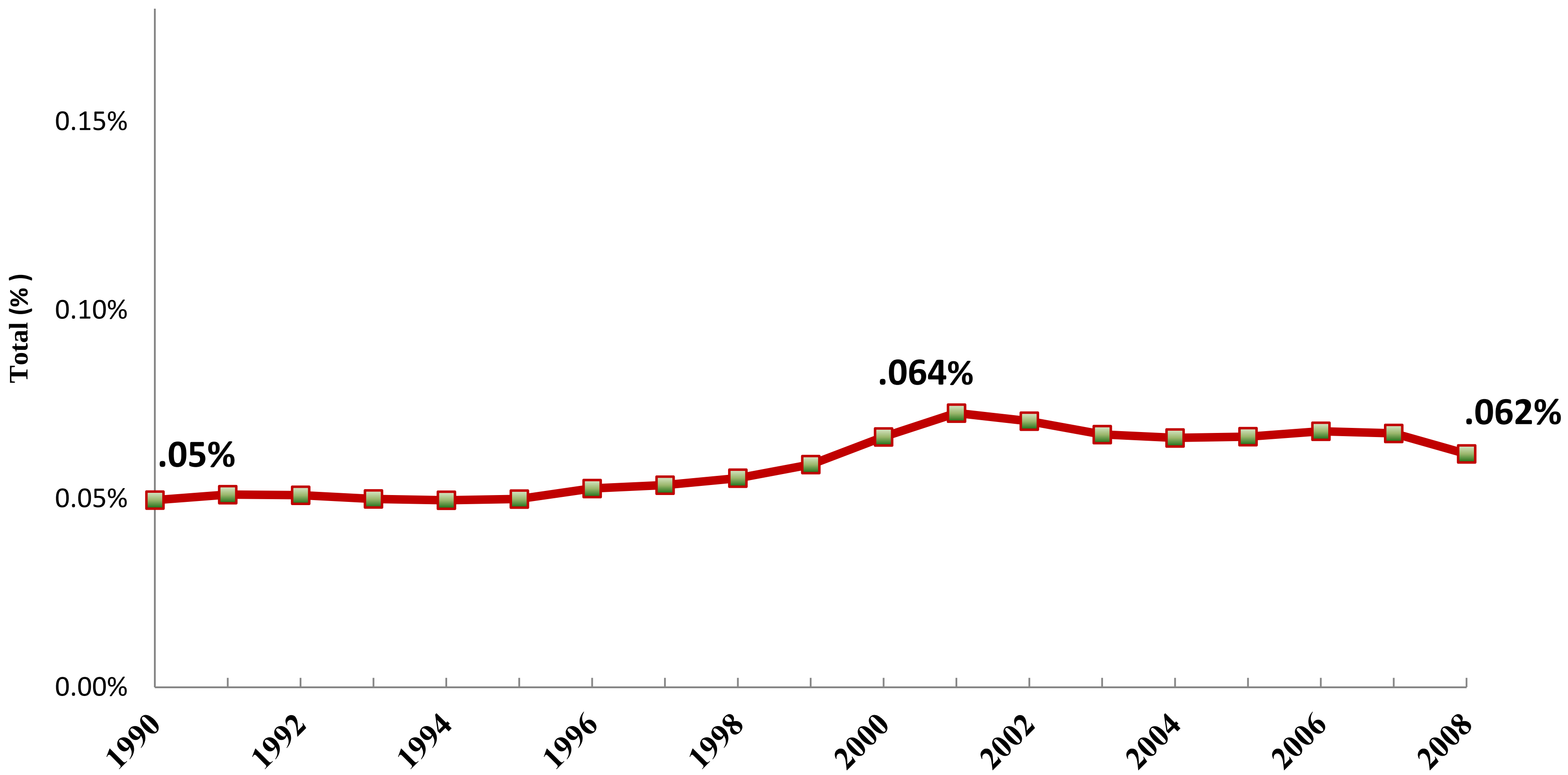
TV Viewing Continues to Edge Up

Submitted: January 3, 2011 - 9:51am
Last updated: January 3, 2011 - 12:30pm
Source: New York Times
Author: Brian Stelter

Americans watched more television than ever in 2010, according to the Nielsen Company. Total viewing of broadcast networks and basic cable channels rose about 1 percent for the year, to an average of 34 hours per person per week.

The generation-long shift to cable from broadcast continued, but subtly, as the smallest of the big four broadcast networks, NBC, still retained more than twice as many viewers as the largest basic cable channel, USA. Cable hits like "Jersey Shore"

Employment in Cable and Subscription Program Production, as % of Total Employment 1990-2008



Sources: U.S. Census; IBRC
Preliminary data (Waterman/Ji, March, 2011)

Online Television Timeline

2005
- *YouTube* Launch
- Free broadcast network TV programs posted

2006
- Network "takedown" orders to YouTube/lawsuits

2007
- *Fox, NBC* launch *hulu.com*
- *CBS* launches tv.*com*

2009
- *ABC* joins *Hulu.com*

2010
- Comcast/TW launch *Everywhere TV*
- *hulu.com* revenues: $240m +

Online TV so far…

- Displacement of standard TV relatively minor
- Analysis mostly prospective
- Broadcast and cable TV are different….. separate discussion, beginning with broadcast

U.S. Broadcast TV case: Reasons for industry optimism (?)

- **Relatively easy IP control**
  - Fairly effective U.S. copyright law for TV
  - Low incentive to steal programs that are already "free"

- **Basic business model of in-program advertising transfers to Internet**
  - CPM ad rates good (though # ads low)
  - Direct payment potential (*hulu*, *iTunes*)

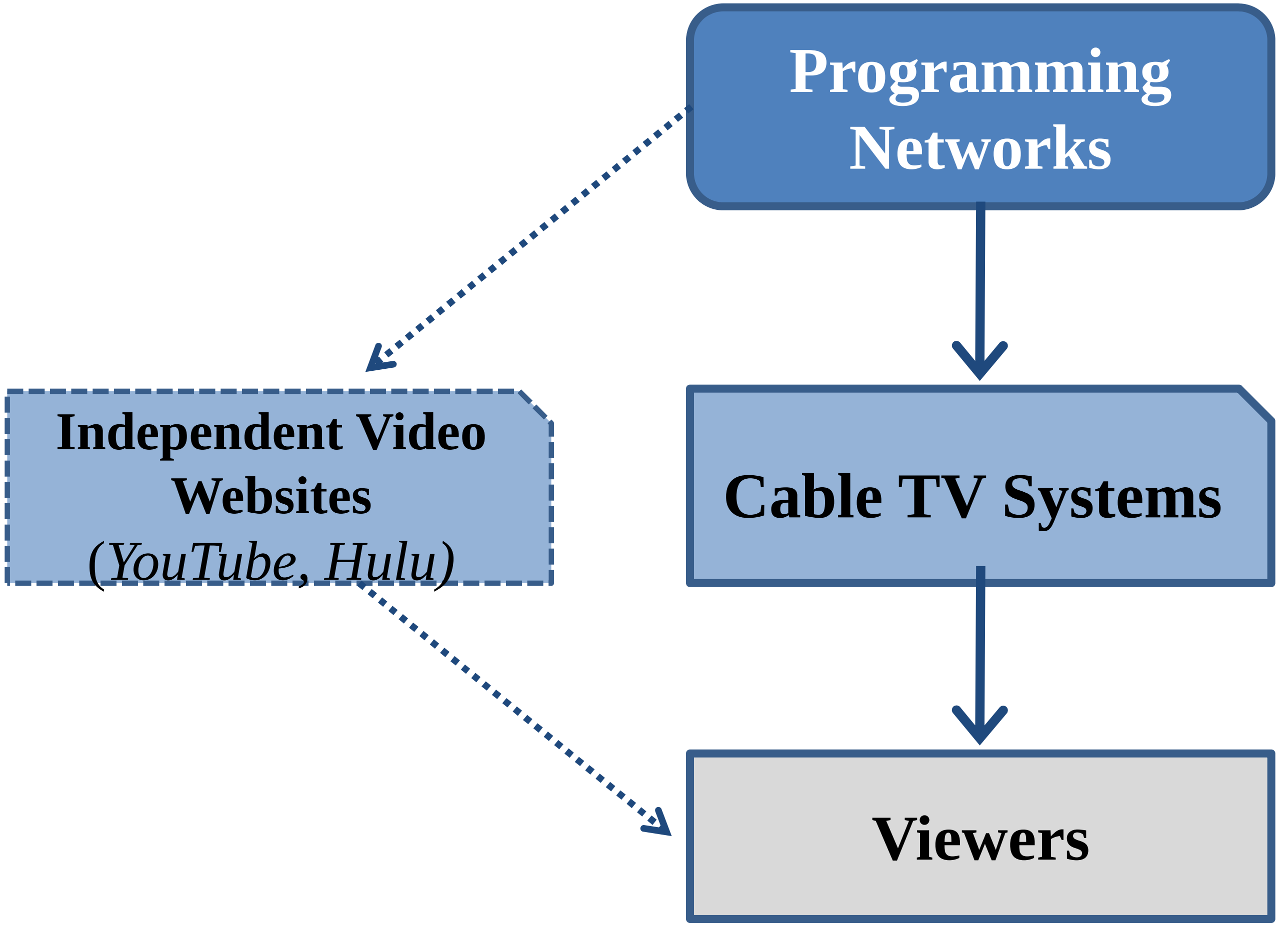
- **Much lower cost than standard broadcast TV delivery**
  - Clumsy system for signal distribution to 200 local stations

- **Broadcast networks (mostly for now) have mass audience and advertisers want that**

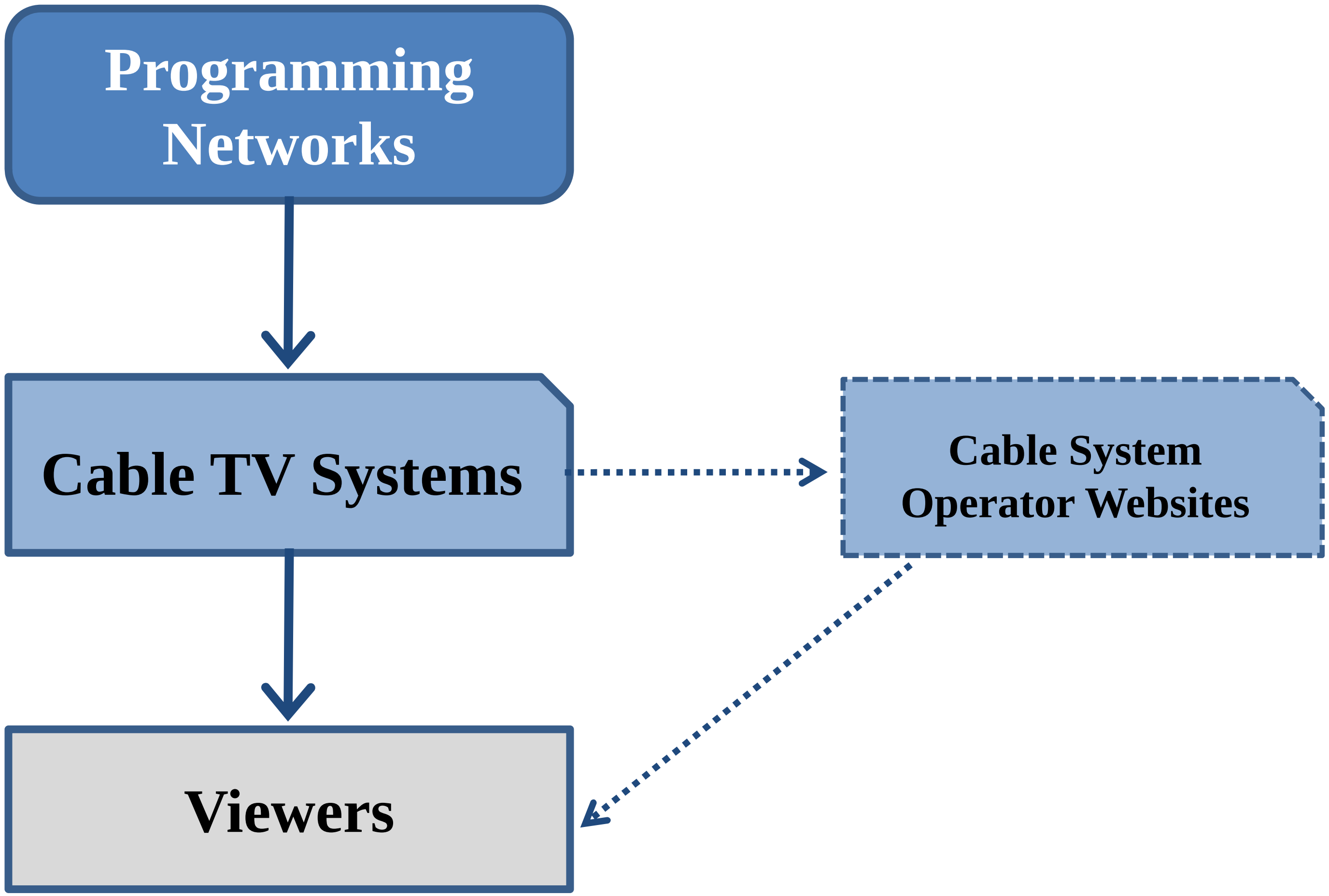
U.S. Cable TV case:

- **Over the long term, a different threat..**
  - **Cable systems are program network aggregators**

Prevailing Cable TV Model



TV Everywhere TV Business Model



U.S. Cable TV case:

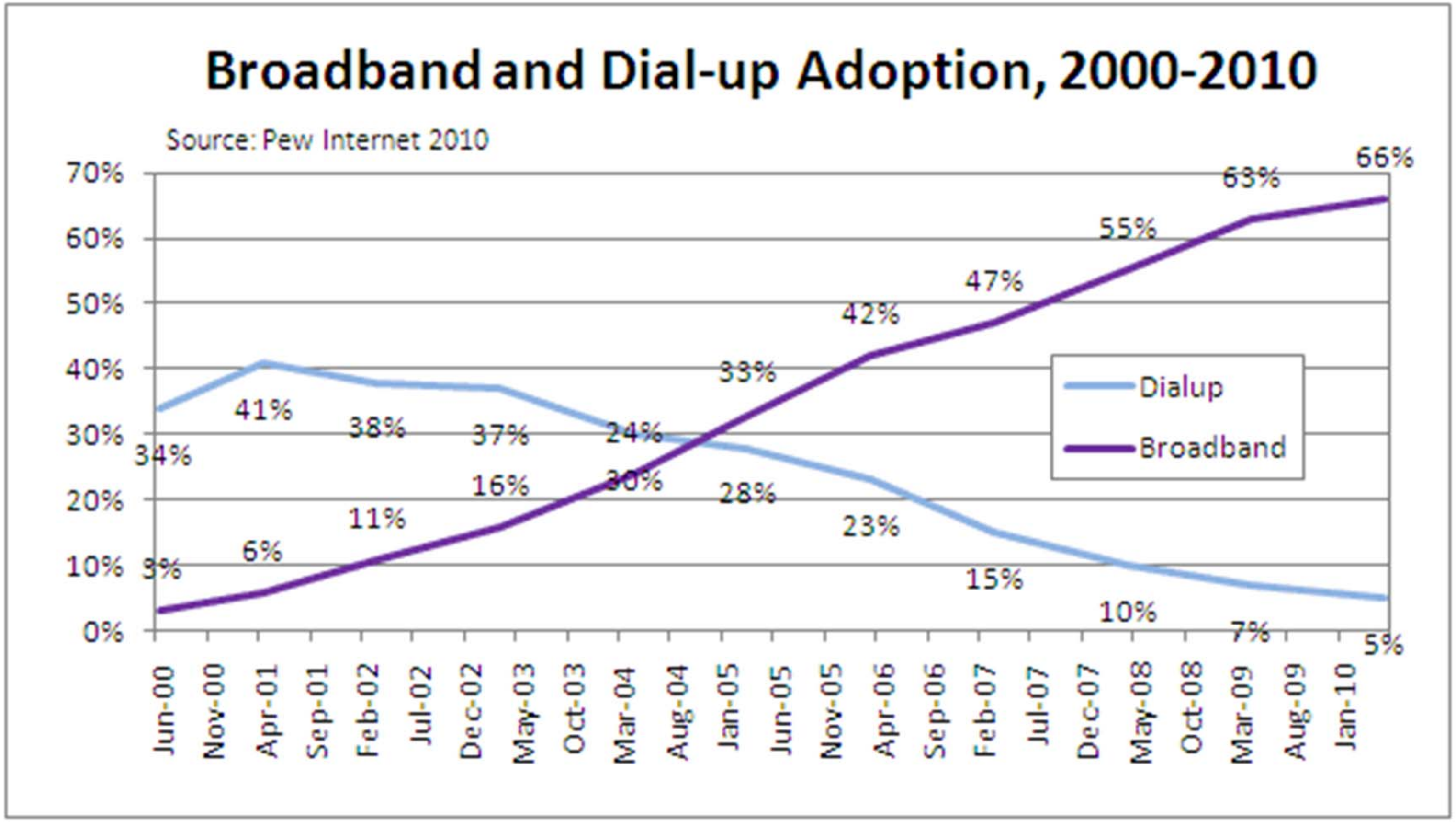
- ❑ **Over the long term, a different threat..**
  - ➢ **Cable systems are program network aggregators**
  - ➢ **IPTV can disaggregate cable (like newspapers)**

but….

- ❑ **Cable television is a very versatile and efficient broadband technology.**

- The end

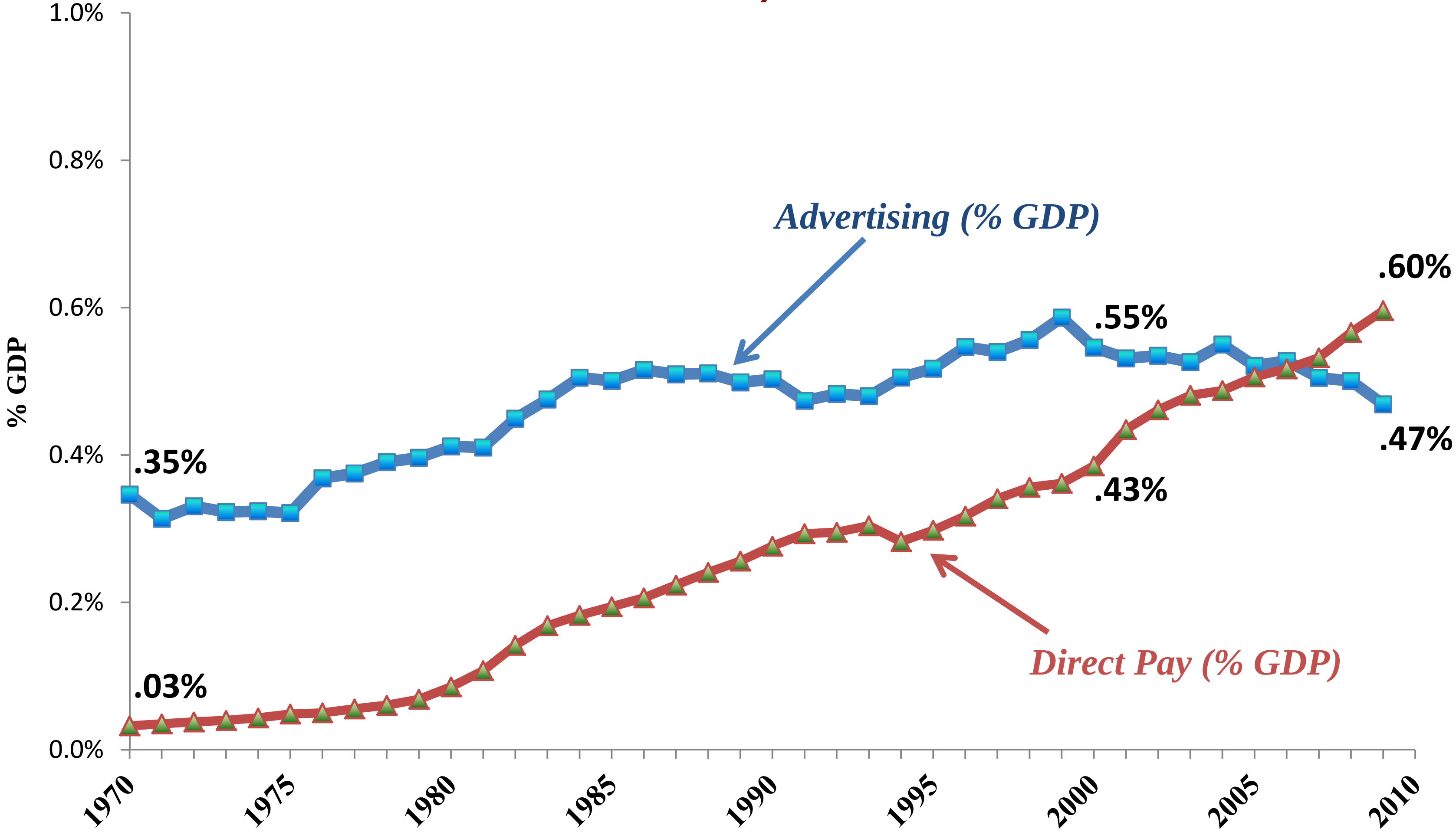
Broadband and Dial-up Adoption



Sources: Pew Research
Preliminary data (Waterman/Ji, March, 2011)

Part I - extra

Advertising vs. direct pay support as % of GDP: Television, 1970-2009



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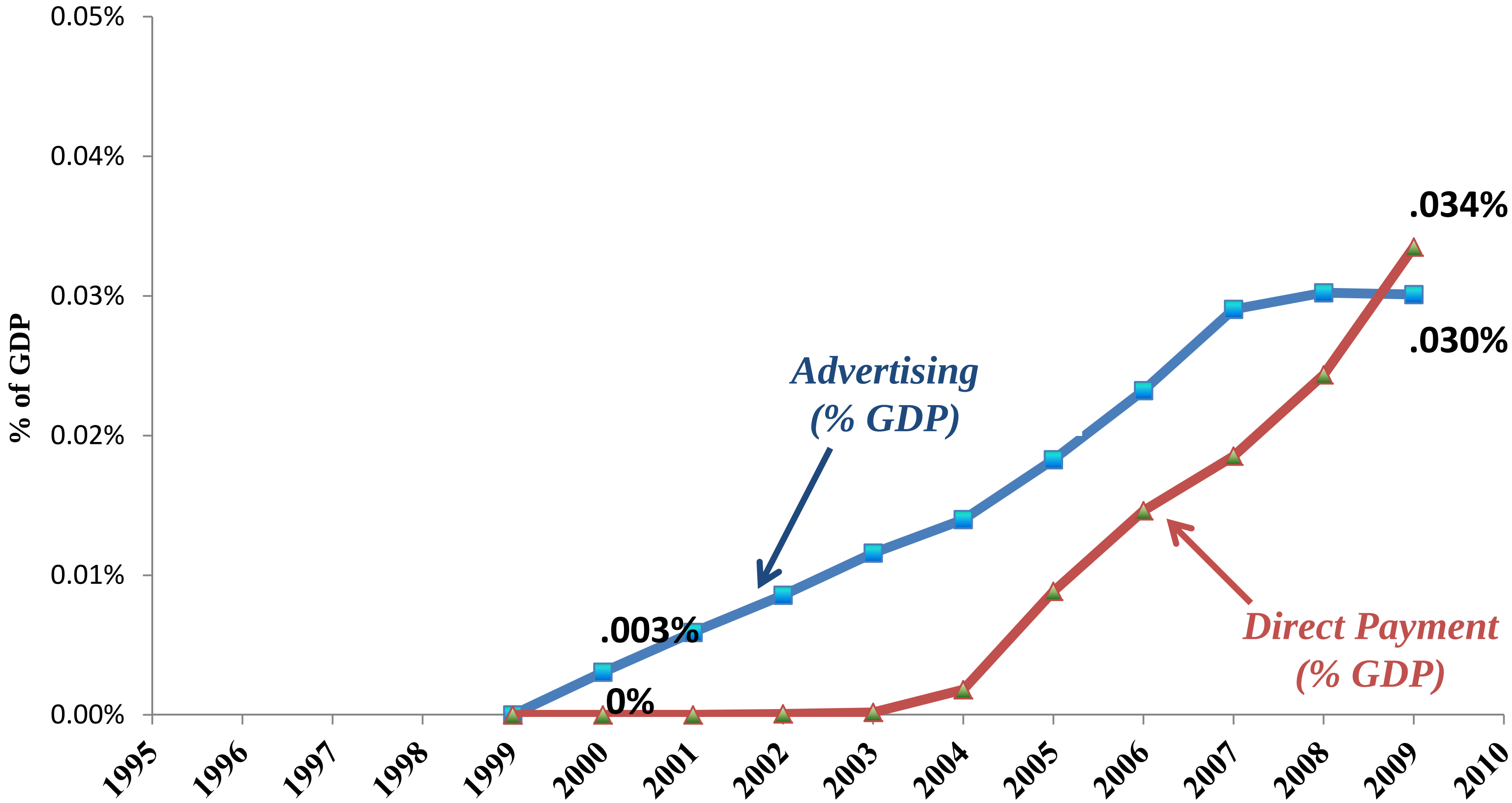

•Internet "lower bound"
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Internet cost reductions I: Movies

"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 Kagan Research and Adams Media data
Preliminary data (Waterman/Ji, March, 2011)

Internet cost reductions II: Newspapers

- Distribution of printed newspaper costs (33,000 circ. paper, 1994)*

News-editorial	16%
Advertising	11
Production/printing	39
Circulation	11
Building/depreciation	32
Total	100%

- Classified advertising

Decline of print newspaper classified revenues, 2000-2008:	$9.6 bil.
Total Internet classified advertiser spending, 2008:	$3.3 bil.

Sources: Inland Press Association, NAA, IAB
Preliminary data (Waterman/Ji, March, 2011)