AFTER COVID
THE INDUSTRY RESETS
Tom Wolzien
2023 Entertainment Bar Symposium
Ziffren Institute
UCLA Law
First Streamed May 31, 2023

(Adapted from the Video Presentation[1])

Hi everyone, the Status Report is back here for the…I can't believe it…fourth year on video. Thanks as always for the return invite to UCLA Law and the Ziffren Institute for Media, Entertainment, Technology & Sports.
Well, a bit of covid still here and there, but this is now the AC era—after covid. Of course there was DC…during covid…and before that BC…before covid aka the before times. We'll talk about BC, DC, but mostly AC as the world resets.

For this industry, part of that reset is the evolving and very difficult labor negotiating cycle which I'll touch on at the end of our 45 minutes or so. However, in reality just almost everything we'll talk about today is foundational in some way for the current labor issues.

Our agenda today has no time to dwell on the past, but we will use history and our annual Status Report as platforms …perhaps lessons… for the reset. We'll note the wide recognition this past year that theatricals, are important marketing vehicles for streaming. Think about that 2020 release date on this Top Gun trailer and what a waste it would have been had Paramount stuck it on streaming…like AT&T did with Tenant.

[1] Educational research presentation prepared for 2023 Entertainment Bar Symposium at UCLA Law's Ziffren Center. Video first streamed May 31, 2023 as part of continuing education program for entertainment attorneys. Author has been providing research presentations for this program since 2006.

On streaming, we'll explore the robust annual growth that hit a radical deceleration in the just reported first quarter. We'll look at the end to the golden age of production—aka capital funded production with little reliance on consumer revenues, and the job challenges caused by Fed rate hikes. We'll see the continued decline in cable homes, even as connected homes continue to rise and FAST tries to make a splash. Actually we'll try to figure out what the hell FAST is. Not easy to tell.

As part of acknowledging the stunning growth of global connectivity, we'll pay a special tribute to those who have wired the world…and in some really unexpected places we found. And now that awards season is over, we'll explore the evolution in numbers for winners of best picture over the years and show their divergence from box office results.

Four quick items before we start. Most importantly, I want to acknowledge that you are far more expert in individual areas of this industry than I, so please take this presentation as an overview from a 50,000 foot level.

Second, here are my normal disclosures because I think you have a right to know where my family and businesses may be conflicted. My IRA has Disney. Valerie continues to get e-royalties from her 24 mysteries. And after a decade of development we sold our smartphone remote Video Call Center Venture, but kept the intellectual property, Our new, wholly owned Video River Group LLC is now seeing royalties from dozens of patents in 17 countries and other technologies we developed over the past decade doing the smartphone remote work.

Third, except where otherwise identified all research for this educational presentation is from or derived from publicly available sources….lots of them, and... Fourth, except for video shot by Valerie and me, all clips in our review today were recorded from the web which means -- well, some may look like clips recorded from the web, just so you know.

THEATRICAL DISTRIUBTION

Status report--Theatrical distribution first not because it is the most important, but because its a building block to get to

2022 US Box Office Top Ten

1	Top Gun: Maverick	$718,318,561
2	Black Panther: Wakanda Forever	$436,499,646
3	Doctor Strange in the Multiverse of Madness	$411,331,607
4	Avatar: The Way of Water	$401,007,908
5	Jurassic World: Dominion	$376,851,080
6	Minions: The Rise of Gru	$369,695,210
7	The Batman	$369,345,583
8	Thor: Love and Thunder	$343,256,830
9	Spider-Man: No Way Home	$231,808,708
10	Sonic the Hedgehog 2	$190,872,904
	Total Top 10	**$3,848,988,037**
	Total Box Office	7,369,357,270
	Pct of 2022 Box Office	52.2%

the bigger event--streaming. And also because, as I noted last year, theatrical releases establish a price and value floor for streaming—something that appears to be adopted as both Amazon and Netflix announce broader theatrical slates, following similar start-them-in-the-theatres realizations as both Disney and WBD backed off covid-era release approaches.

Last year… and this year so far…big money on big screens once again means some big audiences and big revenue. Sequels and franchises drove the business, led by Top Gun in 2022 and now Super Mario Brothers and Avatar so far in 23. Last year the Black Panther sequal was in second place. In fact every one of the top ten movies in 2022 was a sequel or franchise, and those ten films delivered about half of 2022's still low, but recovering total box of $7.4 billion. That's 64% better than 2021's $4.5 billion, and more than three times the 2020 disaster of $2.1 billion, all of which came before the shut down in March. [2]

The box office is coming back, but still has a ways to go to reach 2019's 11.4, or 2018's record $12 billion. As a reference, you had to go back to 1999…and Episode 1 of Star Wars to match the 2022 box office. First quarter of 2023 had the biggest box office gain in any of the 40 pre-covid years before, up 28% over 2022. And thanks to Super Mario Brothers, that was expanding even more by Easter weekend.

Recovering US Box Office

2022	$7.4
2021	$4.5
2020	$2.1
2019	$11.4
2018	$12.0

As many of you know, I'm curious if sometimes you can see the trends right in front of you, we did again in what's become an annual Easter afternoon video trek for this report to Lyceum multiplex in tiny Red Hook, New York, up the river from our Rhinecliff place. You may recall the Lyceum lot was nearly empty when we first shot it two Easters ago… a bit fuller last year, pretty closely reflecting the starting comeback. Well, this year the cars in the lot had double last year's . And in fact that matched the numbers. Easter Weekend 2023 at $231m was about double 2022—just like the Lyceum parking lot. And 2022 Easter Weekend box was three times 2021.

[2] All box office statistics and derived analysis based on boxofficemojo.com data.

And while the year may not quite get back to normal, by mid May, year to date numbers continued to show progress, up 29% from last year, but still a quarter below 2019.

On a global basis last year, first place Avatar was $800 million ahead of Top Gun, but again the top ten were all sequels or franchises. All were western made, except number nine… and that was the China made sequel to 2021's number two grossing global film, the heroic (well, heroic if you happen to be Chinese) story of the Korean war battle of Chengin Reservoir… known in the States as the ugly loss and retreat from Frozen Chosen. That sequel called Water Gate Bridge is the story of trying to blow up a crossing crucial to the American's escape. This one grossed over $600 million US dollars…virtually all in China….and I thought once again delivered some interesting political insights. (Massed soldiers chanting "long live the new China.")

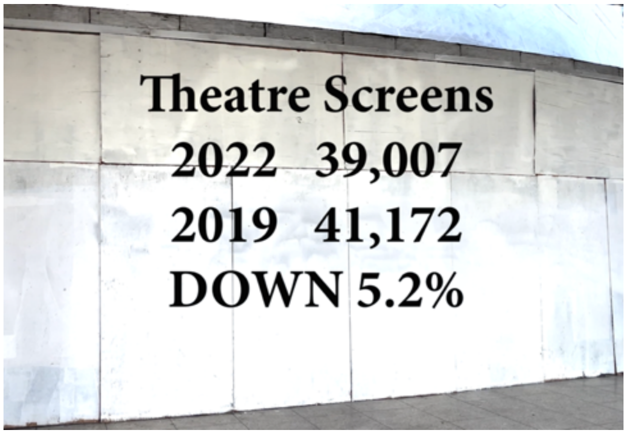
2022 Global Box Office Top Ten

1	Avatar: The Way of Water	$2,318,502,120
2	Top Gun: Maverick	$1,493,491,858
3	Jurassic World: Dominion	$1,001,978,080
4	Doctor Strange in the Multiverse of Madness	$955,775,804
5	Minions: The Rise of Gru	$939,628,210
6	Black Panther: Wakanda Forever	$859,207,913
7	The Batman	$770,945,583
8	Thor: Love and Thunder	$760,928,081
9	Water Gate Bridge	$626,571,697
10	Puss in Boots: The Last Wish	$480,316,232

Twenty seventh in the US at $75 million, and 37th globally was Everything Everywhere All At Once, which in the honors business, swept about everything, everywhere. Considering that Top Gun's US revenue was ten times that of Everything Everywhere, we'll be looking at the evolving negative relationship of box office, screens, and best picture later in this session.

Speaking of screens, while in LA for the awards season, we went back to check out the old Cinerama Dome on Sunset for the third year in a row, to see if there was any progress since it went bankrupt and closed. There had been reports a year ago that ArcLight got a one year liquor license and would reopen under a new name. With reports the 14 screen complex would reopen last year, then this year, now Deadline reports its 2024. By the way, the liquor license is reportedly expiring May 31st… that would be today if you're watching in real time.

All that got me to wondering just how bad Covid was for theatre screens… how many were shut down. Year end numbers from the National Association of Theatre Owners—that different

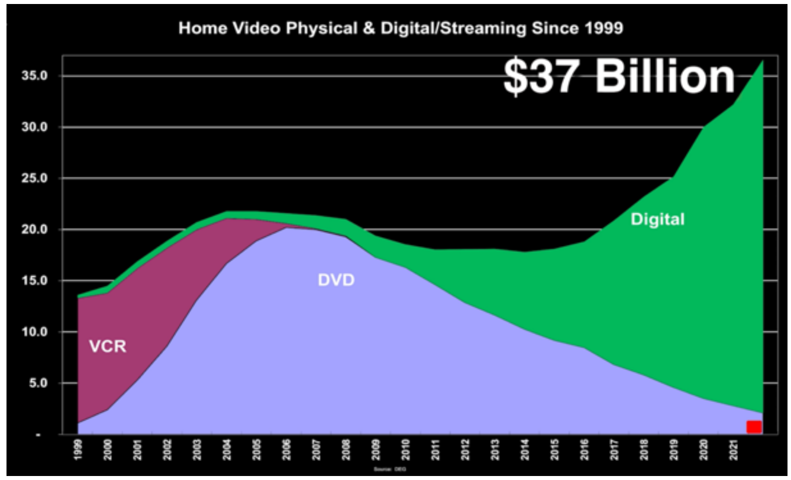


NATO—gave us just about 39,000 screens at the end of 2023, versus 41,172 pre covid in 2019[3]. That decline of only 5% was surprisingly small, at least to me, in what appeared to be a decimated industry. Guess it doesn't cost much when you turn off the lights and send the employees home…or in some cases get bankruptcy protection. Strangely, the closing percentage wasn't much difference with the country's remaining drive-ins, which you'd think would have done well during covid. The remaining drive ins also lost about the same 5% during covid, now at 533, a quarter of number back in 1987.

Now here's another followup. This Hyde Park New York drive-in that I showed you in our 2020 first video session has been up for lease this spring. Turns out the owner is none other than the United States Government, and the National Park Service has been looking for a new operator for the single screen located between the presidential library at FDR's family home on the Hudson river side, and Eleanor Roosevelt's ValKill cottage just east of the drive in.

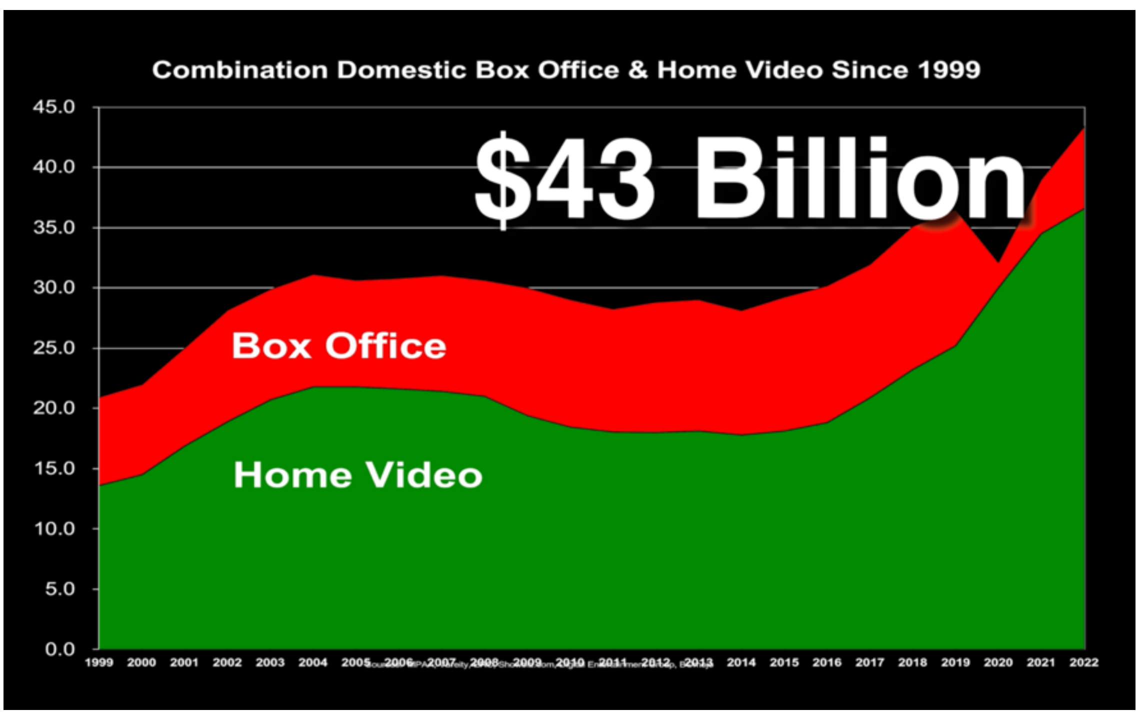
[3] https://www.natoonline.org/data/us-movie-screens/

DIGITAL HOME VIDEO



On the digital home video side, the numbers continued up last year according to the industry's Digital Entertainment Group, pushing 37 billion in '22. It's a long ways from the dark days of a decade ago when DVDs were collapsing, and before digital took off. By the way, now only 2 billion comes from sales and rentals of legacy DVDs, explaining Netflix's recent decision to get out of the DVD rental business….and all those red envelopes. Of course, the bulk of revenues come from subscription streaming SVOD—30 of the 37 billion, up 17% in 2022.[4]

Fair to say, I think, the industry has weathered two storms this century---the death of DVDs and covid because when you put the business together—theatrical spending plus digital home consumption—you get an all time record of $43 billion dollars in direct domestic consumer content spending last year.



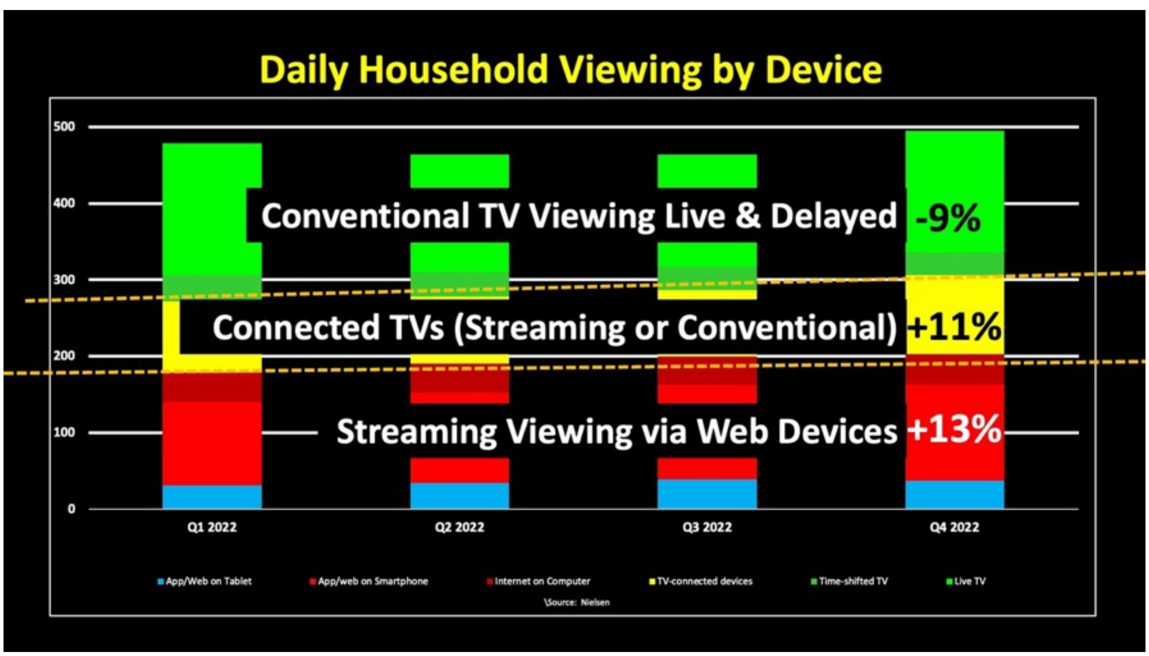
[4] https://www.degonline.org/industry-data/

But the weight of big numbers means all great growth eventually must come to an end, and perhaps we are beginning to see that with SVOD, at least in the US where 82%[5] of the 130 million households—106 million are now streaming content—so there are just not that many left. And ultimately the industry is limited by some combination of how many services a household really needs… and how much a family can afford.

What they can afford, though, are smartphones, 307 million[6] of them used by 85% [7]of adults and generating nearly half the web's traffic. And the vast majority are used to stream content, but not surprisingly more by younger demos, but be careful how you define younger. According to work by Samba[8], younger means starting with GenX or basically people under 60.

VIEWING EVOLUTION

Nielsen data shows just how this is playing out across three general viewing devices. Conventional TVs, including delayed viewing, internet connected TVs which let you stream in addition to watching conventional TV, and internet devices including pads, smartphones, and computers. Over the course of last year overall video consumption climbed 3% from the first through the fourth quarter, but viewing on conventional TVs dropped by 9%, or 18 minutes per day per household. That viewing went to a combination of the connected TVs and the web



[5] MoffatNathanson/HarrisX, All Things Streaming: Q1 Report
[6] https://www.zippia.com/advice/us-smartphone-industry-statistics/#:~:text=There%20are%20307%20million%20smartphone,than%20116%20million%20iPhone%20users.
[7] https://www.pewresearch.org/internet/fact-sheet/mobile/
[8] Samba.tv State of Viewership 2H2022

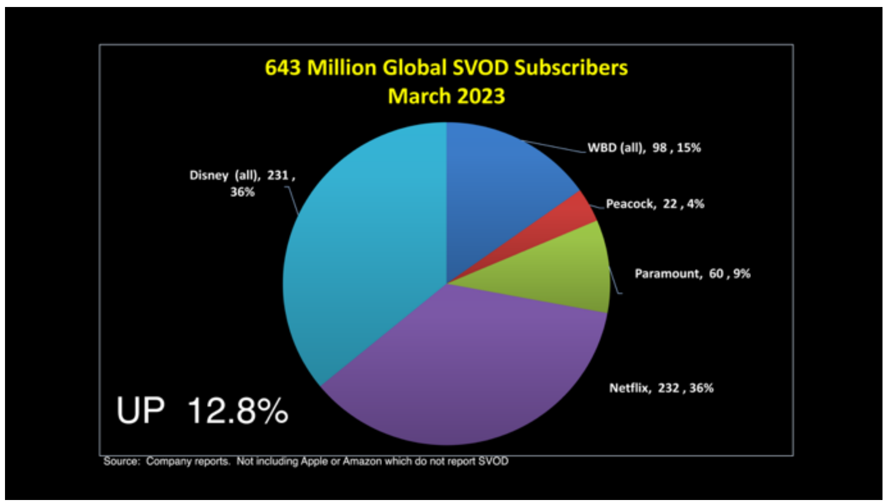
devices. The connected TVs picked up 10 minutes—split between TV and streaming…and the internet devices picked up 24 minutes—two thirds on smartphones.[9]

So the onslaught on conventional broadcast and cable is coming from two directions at the same time. First, internet connected TVs are sucking away the couch viewers. And second, smartphone video consumers, mostly younger demos, are shifting and adding viewing outside traditional locations. This is certainly bad for conventional TV… and you'd think would be great for streaming..but maybe not quite as much as you'd think.

SUBSCRIPTION VIDEO ON DEMAND (SVOD)

We've got all the earnings reports now from the quarter ending March 31st—and they are good for the past year, but very tough for the quarter.

Past year first Globally, The five big US owned subscription video on demand companies that provide numbers reported nearly 13% growth over March a year ago, now more than 640 million subscribers.[10] Newer services in the US and International drove the growth.



Netfix lost 200 thousand subs since March a year ago, down two tenths of a percent to 74,4 million. It did much better globally, up 7% from last year at 158 million. And that was driven by huge, 17% year over year growth in Asia Pacific. Overall, Netflix now has 232 million paying subscribers world wide, down to 5% growth, again thanks to AsiaPacific.

Disney results can be cut multiple ways. Globally the greater Disney was up 12.7% to 231 million subs including ESPN, Hulu and Hotstar in India. Disney plus globally was up 20% to 106 million paid subs, up 36% internationally, and adding 4% Domestically. In the US, all three services were up 7%. And I've got to acknowledge speculation on what happens to Hulu with Comcast's January put comes due for it's third to Disney. Earlier this month Comcast CEO Brian Roberts indicated its all about price. Surprise.

[9] https://www.nielsen.com/insights/2023/as-media-options-proliferate-quality-audience-data-is-the-key-to-delivering-marketing-impact/

[10] Reporting company reports for quarter ending March 31, 2023

Warner Bros. Discovery's merger coming into its own with the new "Max" repositioning of HBOMAX plus a separate Discovery Plus… Coming out of the quarter WBD reported the 4% paid sub growth in the US to 55 million. WBD's international growth was a robust 14% to 42 million. The combined platforms had just under 100 million subs, up a solid 8%. Thank you "The Last of Us".

Thanks to the Yellowstone spinoffs 1923 and 1883, Paramount Global's platform showed great 50% growth to a respectable 60 million at the end of March.

Peacock from NBCU is climbing, but still way behind with 22 million paying subs, but great growth of 69% from last year's low base.

Then there are the non-reporting companies, the unknowables—Apple and Amazon Prime. We did find quite un-precise guesses for Apple plus on the web: pick you point on a continuum of somewhere between less than 20 million to over 40 million paying subs. Prime continues to befuddle, because nobody but Amazon knows how many free shipping customers consume video. The only hint was two years ago when a company investor relations person suggested 175 million[11] of 200 million prime subs watched video…world wide.[12]

BUT, that was year over year. When you look at the just reported first quarter of 2023, the growth rates are radically…and disconcertingly different. Domestically every one of the reporting companies saw radically reduced growth rates from Q4 to Q1, except Netflix, which was pretty much flat.

SVOD Growth Deceleration Q1 2023

Domestic	2022-23	4Q to 1Q
WBD (all)	4%	1%
Peacock	69%	5%
Paramount	52%	7%
Netflix	0%	0%
Disney (all)	7%	0%
Domestic	13%	2%
International	12%	0%
Global	13%	1%

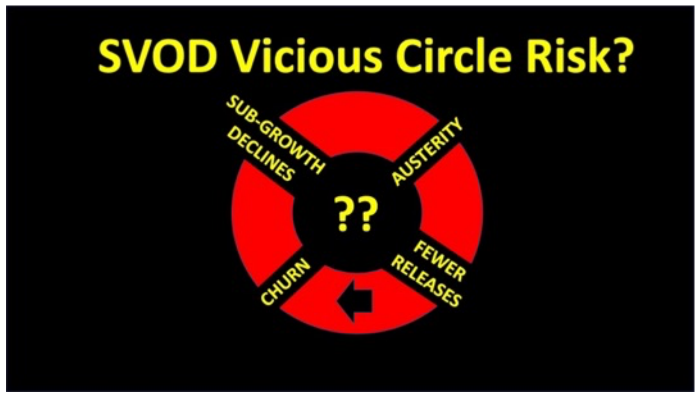
Reporting companies only

Globally, it was the same story, though Disney's decision not to renew cricket in India for nearly $3 billion[13] in streaming rights may be able to be blamed for most of the decline. Its even uglier in chart form. But I wonder if we can consider linking four things here – those sub growth rate declines, austerity, reduced release schedules, and churn. Austerity first:

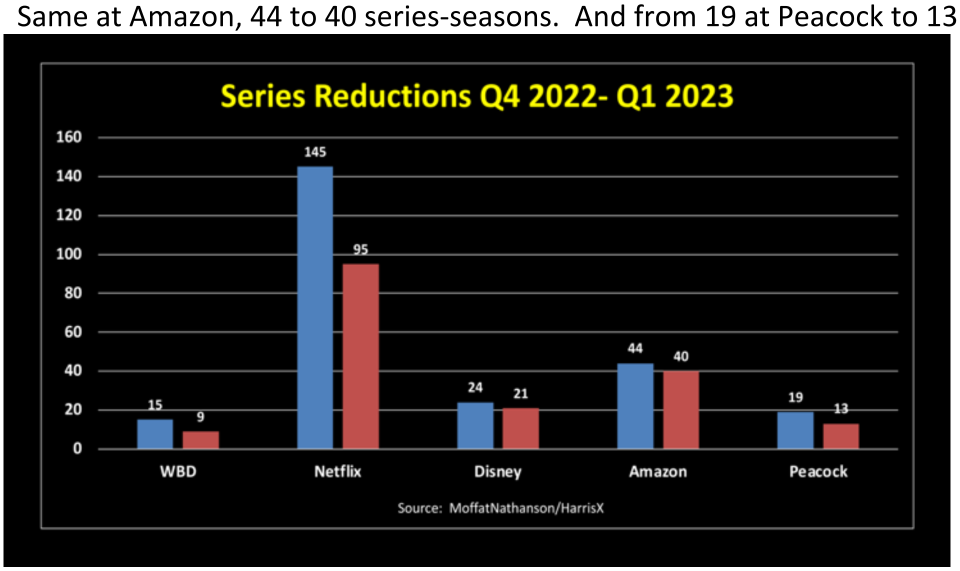
[11] https://www.fool.com/investing/2021/05/06/people-are-finally-paying-attention-to-amazon-prim/
[12] Alternative views at https://www.enterpriseappstoday.com/stats/amazon-prime-video-statistics.html
And https://www.semrush.com/website/primevideo.com/overview/

[13] https://www.bbc.com/news/world-asia-india-61793888

We have come an end to a decade of what I've been calling the golden age of production. It was a decade fueled by capital—both equity and cheap debt---and as growth rates diminish, so does the available capital to chase those last remaining households. And that has manifested itself in reduced production, starting a year ago as Netflix discovered the need for austerity, WBD needed to cover its debt, and general profit-motive rationality prevailed everywhere for the first time in a streaming decade as companies contended with both inflation and the cost of higher interest rates—more on that later.



This new austerity had real-world impact as seen in a significant 28% average reduction in the number of new episodes that aired in the first quarter of this year when compared with the December quarter[14]. Series aired by HBOMax were down 40%. Last quarter of 2022, WBD aired 15 series-seasons worth of new shows, but that was cut to only 9 the first quarter of this year. At Netflix was down 34% with a huge 145 series seasons in Q4 was trimmed to 95 in Q1. Disney was down from 24 to 21. Same at Amazon, 44 to 40 series-seasons. And from 19 at Peacock to 13 in Q1. Paramount was flat in series-seasons, but cut the number of episode by 10%.



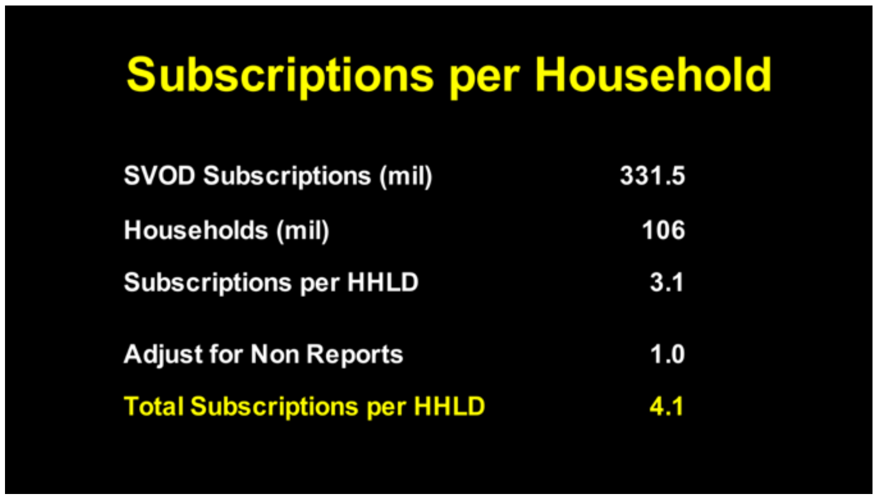
To be fair, there could be more than just austerity as a reason for these cuts. It is possible the companies were holding back content

[14] Op cit. MoffatNathanson/HarrisX

in advance of the possibility of the strike that was to come. It is also possible that, even though the cash may have been spent on more series, airing fewer new shows helped improve the March quarter P&L.

Now, if there's less new content, lets go back and consider those domestic subscription video on demand numbers for a moment. And while we do that, we should remember that premium HBO rarely reached more than a third of the basic cable households.

331 million paying SVOD subs at the end of March, pre the two AAs of Apple and Amazon, divide that by 106 million streaming households and that puts the total of paying subscriptions per household at 3.1. Maybe its aggressive, but lets add another one per month for the two AAs, so lets set the average at 4.1. This would be toward the higher end various industry estimates ranging up to nearly 5[15] SVOD subscriptions per household,. Now some research is suggestsing households are paying for more subscriptions, but are watching only a couple a month[16]…a warning sign for churn if there ever was one.



And that's the enemy for the SVOD companies, CHURN, like it was for HBO and Showtime before.. But Churn now is getting a more gentile name—"subscription cycling." Some subscribers only subscribe for the shows they like, then cancel and wait until the next round.

SVOD, particularly Netflix, taught viewers to binge by dropping full seasons of a series at the same time. Remember Stranger Things. Realizing the error, they began splitting shows like Stranger Things it into half seasons,. And now that has evolved to one episode a week, at least for the biggest shows. All to drag the

[15] https://www.yahoo.com/now/svod-viewership-remained-flat-2022-011000513.html
[16] Opcit samba

viewer along…and reduce the opportunity to churn out….at least as soon.

Now I'd like to suggest that smart consumers may create a new churn risk. I'll call it "***reverse binging***." Viewers really like to binge… to watch a season in a weekend, or a couple of episodes a night for a week or so. But with "reverse binging" they can do that…and still churn out and reduce their bills. If a viewer waits for the shows from the past few months to become available, then he can resubscribe and binge away.

The advantage of this true subscription cycling approach, of course, is that you could churn out of a service until it released a batch of shows, and then you watch them in a month or two and churn out again, going to another service the next month. Across six months of one service per month you could see everything you want, and reduce your subscriptions down to only one a month, saving hundreds of dollars a year.

Of course the way to counter this is for the streaming companies to limit access to the just a day or a week. But that would no doubt result in the development of a new version of in home recording—a modern Tivo. What goes around, comes around.

FAST

With these challenges on the subscription side, one of the things touted to provide additional streaming revenue is the new FAST channels…and there seem to be hundreds of them. But, if you're like me, you may be just a bit confused about what FAST channels really are…and aren't.

First, they aren't Subscription VOD plus Ads, like Netflix or Hulu or Paramount or now Max. But what are they?

Are they Free Ad-supported Television like cable or broadcast but distributed over the web? Or are they Free Ad-supported Streaming Television… which probably should be called FASST? And is there a difference between simulcasting for free a conventional linear cable or broadcast channel with ads…

…or a streaming non-broadcast feed with ads.

…or streaming free individual shows with ads all presented from one channel location… but doing so on demand…which we used to know as AVOD or advertising video on demand…now labeled fast.

FAST is probably all of the above, packaged with a great acronym…certainly a better name than when I introduced the idea almost two decades ago calling it the ***Internet Bypass.***

Here are three examples in two channels. ION's FAST feed raises the question of what's different from a broadcast channel.   But over at NBCU they're using a FAST channel to target a younger adult news demo with a live streaming program, but also an AVOD component with stories from NBC news shows on other platforms.

Lets try to break down the differences between FAST channels, broadcast and cable channels, and the platforms they may ride—independent distribution like over the air or streaming, or platforms like cable systems or FAST aggregators like Roku, Tubi, Samsung, Pluto, and so on.

Advertising is sold by all three—FAST, Broadcast, and Cable. Because they are on the web, FAST channels can target you, or at least your device, individually. Cable distribution allows household or set top box targeting. And the over the air transmitters of broadcast stations currently reach the whole market. In theory, this should make FAST delivery more targeted.

WHAT's THE DIFFERENCE?

Distribution Platform Channel	Aggregator FAST	TV Station BROADCAST	Cable Operator BASIC CABLE
1st Revenue Stream			
Ads	**Yes**	**Yes**	**Yes**
Ad Can Target	**You**	**Your Market**	**Your House**
2nd Revenue Stream	**NONE**	**Retrans Fee**	**Sub Fee**
Fees to Platform	**Ad Splits**	**NONE**	**Ad Minutes**

Notes: Aggregators include Roku, Samsung, Freevee, Pluto.
Note: Broadcast is over the air, not including distribution by cable or satellite

But when it comes to a second revenue stream, FAST channels don't have one. Only ads. And we need to remember that it took broadcasters nearly a half century to force cable to pay retransmission consent fees. Not only do FAST channels on a platform like Roku NOT get paid…they have to give up 40% [17] or more of their ad revenues to the platform.

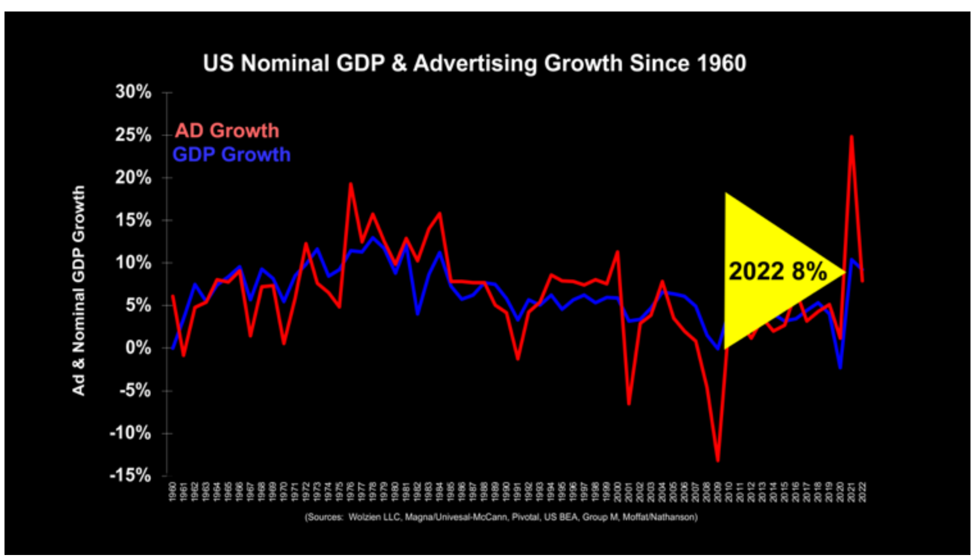
Except for simulcasts, splits like this suggest FAST channels will continue to be more like classic independent broadcasters or third level cable nets, with occasional new shows, but generally reliant on syndicated library content.

By the way, many of the FAST channels showed significant growth in minutes streamed this past year, but were still barely in double digit percentages when compared with the minutes Netflix streams in a day. Even with the most optimistic models I've seen, FAST ad revenues won't amount to more than a percent or so of total advertising dollars a few years out. .

And sometimes that means FAST is not turning out to be fast enough. And maybe that's what Peacock realized when it quit selling new customers its free, totally ad supported version, at the first of the year. Now it's a minimum of $1.99.

ADVERTISING

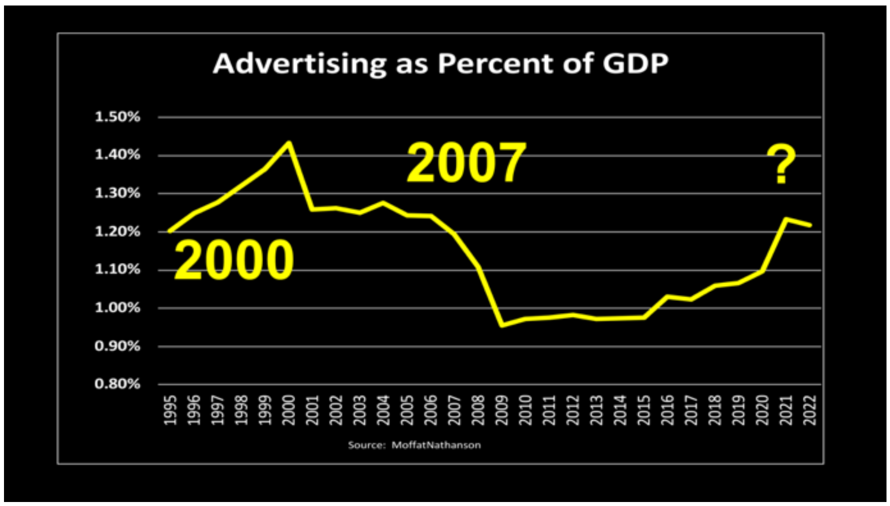
FAST brings us to Advertising overall. You've tracked this chart with me for the past 15 years, nominal GDP growth in blue, advertising growth in red, foretelling inflation of the 80s, and the big downturns in 91, 2000, 2008, and now the covid years. After that huge post-covid jump in 2021, last year's total ad growth came out at about 8%, that's a bit less than the inflated gdp of 9.2%, with real GDP growth only 2% and the rest inflation . Thanks again this year to Mike Nathanson at MoffetNathanson for allowing me to share his ad and streaming numbers with you.



[17] https://www.nexttv.com/news/roku-turns-the-screws-on-its-fast-channel-partners

Legacy media ad growth was a bit over 1%. Once again dominant growth of well over 10% came from digital services like Facebook, YouTube, and Twitter, even as the Internet Advertising Bureau said digital ad growth was much slower than usual. The next few years will tell us whether advertising in the digital services is headed toward a steady state at around a two thirds/one third split with legacy media. Once there is stability in the share of the ad market, the legacy media outlets should find a bit of stability themselves for the first time in two decades.

One final ad note in the I'm not sure quite what it means department, adverting as a percent of GDP over the past two years hasn't been this high since the two bubbles in the early 2000s. Now at one and a quarter percent of GDP, this isn't as extended as the 1.4 percent just before the 2001 crash, but it does equal the percentage going into the 2008 recession. Is this time different? Well, one of things I learned the hard way while working on Wall Street was when they say "this time is different"… be careful. It probably isn't. Just saying.



GLOBAL CONNECTIVITY

On that happy note, lets do some global stats. Global population reached 8 billion last November. While speeds vary widely, mobile internet connectivity now is available to 95% of the world's population. [18] Think about that for a second. 7.6 billion of our fellow humans now have access to mobile internet connectivity—smartphones and devices—according to the industry tracking GSM Association. Of those with access, about 55% [19]are connecting—are using the web.

18

https://www.gsma.com/r/somic/

[19] ibid.

But put another way, four billion people are online through mobile connectivity. Four billion. But at still leaves a huge, four billion person global digital divide. The connectivity is now there, but the divide… like so many other divides…is now financial.

Besides the 4 billion mobile data users, there are now 1.3 billion[20] wired broadband connections—and I'd guess they not only handle two or three people in each household…. but probably reach billions more people by wifi…with likely operlaps as money-saving wifi is used as a connection alternative for those four billion smartphone users.

And every one of those consumer devices, whether attached by wire or radio, needs to be tied into the global backhaul system. Over the past two years we've talked about the potential of LEOs, low earth orbit satellites, the sexy new thing with relatively minor impact today unless you are in the Ukraine. But in the next generation or two our 5G phones will likely be tied into the satellites as well.

But we should take just a moment to acknowledge the very unsexy, but really stunning global wiring accomplishments over the past two or three decades. ---not just in the cities, but across the global outback and under the oceans.

This is a great animation from Visual Capitalist[21] shows three decades of fibering the oceans, and not just by the traditional telcos. Amazon, Meta, and Google now own 63 thousand miles of undersea fiber. This is what moves your data, whether watching Netflix in India or doing business in Dubai.

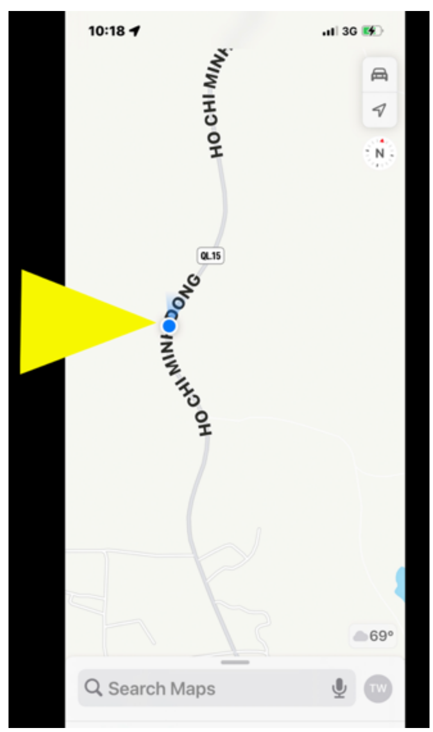
Then there's the fibering of our cities and countryside, where there is so much work in the US, at least, that the Wall Street Journal reports[22] a shortage of tens or even hundreds of thousands of fiber splicing experts which may impede the US governments $43 billion plan for nationwide broadband coverage.

And then there's fibering the global outback—I'm talking about the real outback—the bush country of Africa and the jungles of Asia. We ran across two small examples that got me thinking about this incredible accomplishment of wiring locally while connecting globally.

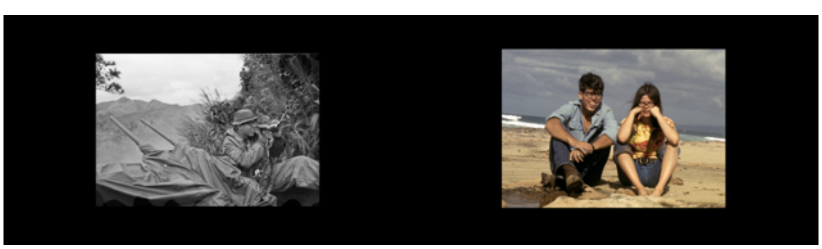
[20] https://www.point-topic.com/post/global-broadband-subscriptions-end-2022-fibre-claims-two-thirds
[21] https://www.visualcapitalist.com/wired-world-35-years-of-submarine-cables-in-one-map/
[22] https://www.wsj.com/articles/high-speed-internet-plan-worker-shortage-be83a843

Take Zambia, somewhere between the White Rhinos and the Zambezi River up from Victoria falls we found this new single fiber line running through the bush. One cable, nothing else for miles.

Then there's this one that really got me thinking about doing this section. If you found yourselves on the Ho Chi Minh Trail near the border of Laos in western Vietnam, as Valerie and I did a few months back… OK, a brief back story is needed as to why we would even go find the trail used to deliver supplies from then North Vietnam to the South a half century ago. Here's why:



52 years ago, young lieutenant Wolzien was an Army Signal Corps Director shooting film on the Laotian border, around KheSanh and the Ho Chi Minh trail..and left there for Hawaii to get married in the Army chapel on Waikiki Beach. So for our covid-delayed 50th anniversary trip we went back to the Laotian Border, Khe Sanh, and what's now the called the Ho



Chi Minh highway paved, two lanes, yellow lines, complete with suspension bridges…and if you don't believe me… there's our blue dot right there on a Waze screen grab. Waze on the Ho Chi Minh Trail. Need I say more. Backstory over.

So if you found yourself on the Ho Chi Minh highway, you'd also notice that there's mostly buried fiber all along the way, connecting the towns and rural villages up and down the western side of Vietnam. Something about beating swords into data cables….

Overall fibering the world has been one of mankind's amazing accomplishments… and to great extent, an unrecognized one. But it is that very fiber that lets the people of the world consume the work of this town…and its counterparts. And that's part of what New York Times columnist Tom Friedman calls flattening the world. It also makes this a business of the world…with wide professional constituencies and fewer borders.

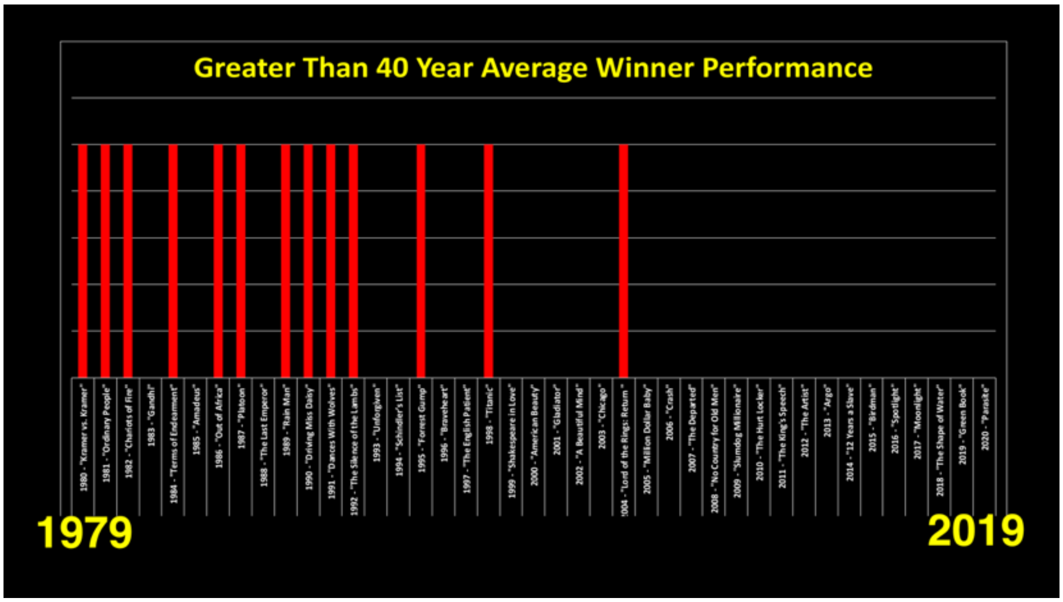
BOX OFFICE AND BEST PICTURE

As the industry each year honors its top achievers we realize just how diverse and wide spread it has become. And while many would argue not enough, it is interesting to take a look at how this evolution has disconnected traditional box office from perceptions of what is best—as manifested in best picture at the Academy Awards.

Harry Potter and the Deathly	381,011,219	2012 - "The Artist"	44,671,682
Avatar	749,766,139	2011 - "The King's Speech"	138,797,449
Transformers: Revenge of th	402,111,870	2010 - "The Hurt Locker"	17,017,811
The Dark Knight	533,345,358	2009 - "Slumdog Millionaire"	141,319,928
Spider-Man 3	336,530,303	2008 - "No Country for Old Me	74,283,625
Pirates of the Caribbean: Dea	423,315,812	2007 - "The Departed"	132,399,394
Star Wars: Episode III - Rever	380,270,577	2006 - "Crash"	54,580,300
Shrek 2	441,226,247	2005 - "Million Dollar Baby"	100,492,203
Finding Nemo	339,714,978	2004 - "The Lord of the Rings: '	378,251,207
Spider-Man	403,706,375	2003 - "Chicago"	170,687,518
Harry Potter and the Sorcere	317,575,550	2002 - "A Beautiful Mind"	170,742,341
How the Grinch Stole Christm	260,044,825	2001 - "Gladiator"	187,705,427
Star Wars: Episode I - The Ph	431,088,295	2000 - "American Beauty"	130,096,601
Titanic	600,683,057	1999 - "Shakespeare in Love"	100,317,794
Men in Black	250,690,539	1998 - "Titanic"	659,363,944
Independence Day	306,169,268	1997 - "The English Patient"	78,676,425

Earlier I noted that Everything Everywhere had won about everything everywhere, while bringing in a tenth of the revenue of the most popular movies. I was curious if best pictures ever reflected box office hits, or whether the definition of "best" has always diverged from audience popularity as shown by revenues. So using Box Office Mojo data I went back for the 40 years pre-covid starting in 1979 when Superman led domestic box and Kramer vs Kramer won best picture. I looked at total box for the movies and to be fair to end of year releases, compared that to the industry total for the releasing year and the following year.

The result… there seems to have been a pretty fundament change around 20 years ago or so when winners began to show reduced linkage to

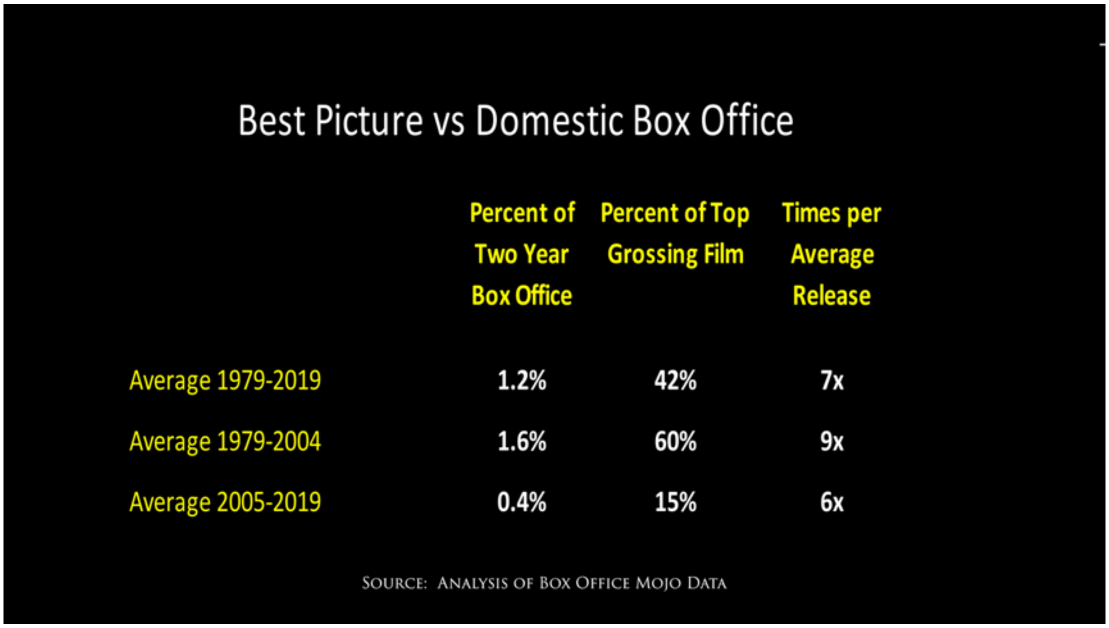


popularity at the box office and just basically lower numbers for newer Best Picture winners when compared with winners farther back.. For this chart I compared the average life time box office of each winner to the average revenue of winners across the 40 years. As you can see, no winner since 2004 has beaten the average….and each later year has had the benefit of inflation.

I have tried to understand this disparity in three ways: Winners revenues as a percentage of the two year box office, winner's revenue versus the top grossing film, and to compensate for the large increase in releases, what the winners brought in when compared to the average for each release in that year.

Across the 40 years, the average best picture brought in 1.2% of the two year box office across its history, including any bump it got from winning. Between 1979 and 2004 the average was 1.6%, but in the 15 years starting in 2005 that dropped to only 4 tenths of a percent, a quarter of the earlier period.

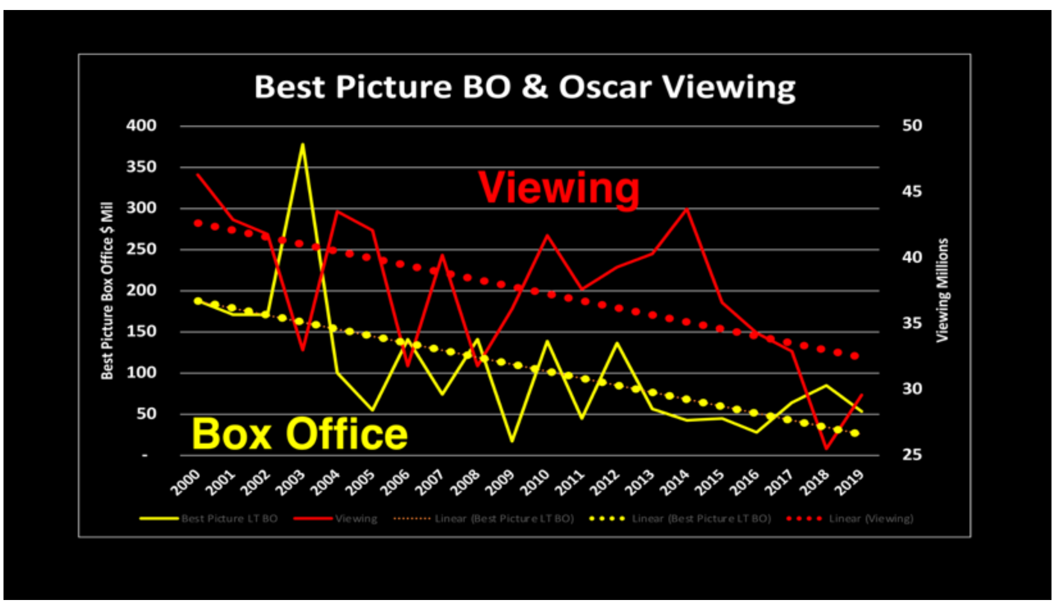
Same story when comparing the best picture with the top grossing film. On average, the winner picked up a respectable 40% of the top grosser. It brought in well over half as much in the



earlier years, but more recently that dropped to 15%, emphasizing the increased disparity between the popular and what the industry thinks is the best.

Finally, the winners have always done better than the average of all releases, 7 times better across the 40 years. But again, in the first 25 years they did more than 9 times better than the average film, while that dropped to only six times better than average in the 15 pre-covid years, making it difficult to suggest the cause of the disparity is an increase in releases.

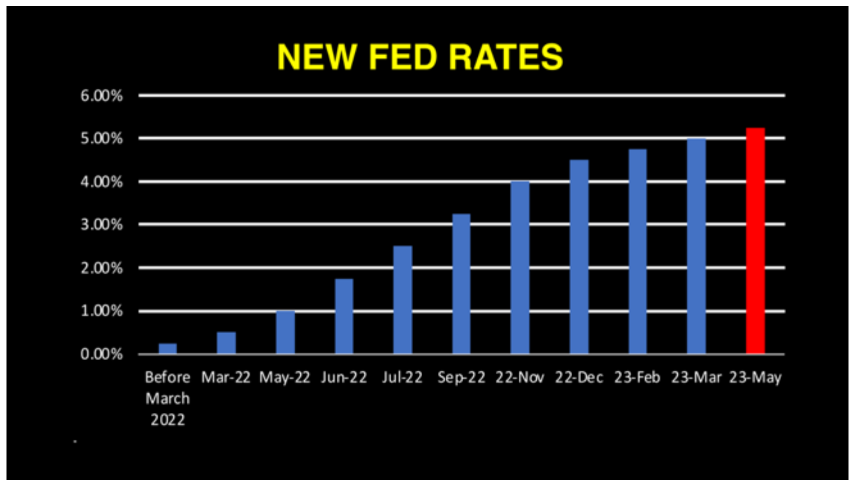
So what does all this mean. Lets consider the Academy Awards telecast and the question of



relevance in the context of favorite movies. This chart lines up Oscar viewing with the winners' box office revenue. Their declines are fairly consistent. Whatever else may be at play in the selection process for Academy Award winners, it is reasonable to ask why people would watch the Oscars if they don't think their favorite movies have a chance of winning.

FEDERAL RESERVE RATE HIKES

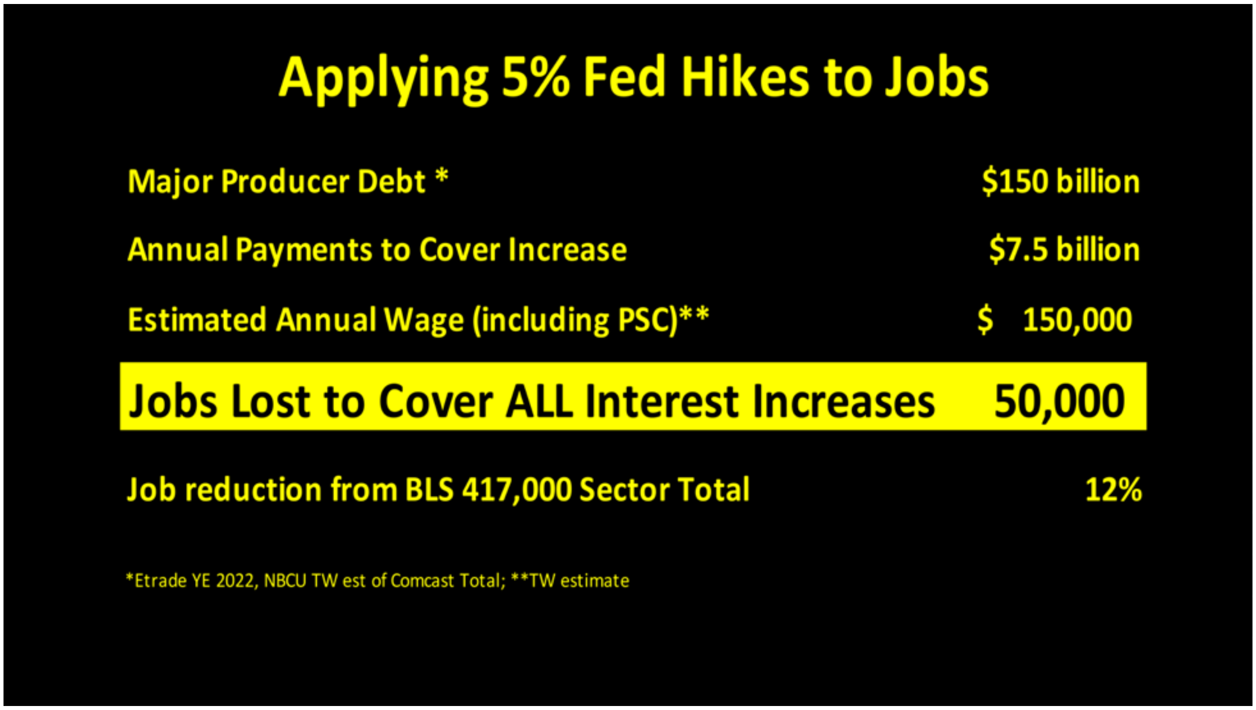
While we're talking about data, lets shift to the ten rate hikes by the Federal Reserve over the past 14 months… and what that might be meaning for the industry. We can't underestimate the impact of higher interest rates on media companies, as they converge with the substantial cost pressures already delivered by inflation overall. The Fed's increased raised rates 5% points, and while companies have different debt terms that put off the full impact of higher rates, there is significant potential impact on jobs as companies try, at least partially, to offset bigger interest payments with force reductions as part of their mitigation strategies. Let me show you.



The top companies in the motion picture and television sector are carrying an estimated 150 billion[23] in debt with about a third each at Disney and WBD, and the rest at Paramount, Fox, Netflix, and Comcast for NBCU. If, hypothetically, all of their interest rates increase the same 5 percentage points as the Fed's, that's an additional $7.5 billion in costs they need to cover, just to stay even, and the $7.5 billion is just interest increases, not other inflationary costs.

Here's one way to look at it. Lets assume an an all in number of around $150 thousand per employee for this exercise. This is way above the Bureau of labor statistics $86.060 for the 417,000 people it says are in the Motion Picture and Television sector[24], but that salary number doesn't include actors and other part year employees, and it also doesn't include payroll service costs—overhead—so I'm going with a higher number… which makes the results somewhat less ugly.

[23] Based on total debt in company reports 12/2022 but attributing $20b of Comcast's total to NBCU.
[24] https://www.bls.gov/oes/current/naics4_512100.htm#00-0000



So, if you divide the 7.5billion by $150k per employee, that would equal 50,000 employees, or 12% staff reduction to cover the increase in interest to match the Fed's hikes.

Now, I could say something gratuitous here, like "Of course everyone hopes to increase revenues…and find other ways to cut costs." But the numbers are the numbers and unless the Fed cuts rates… companies are going to have to find ways to live with higher numbers as their debt rolls over.

CONTRIBUTING FACTORS TO LABOR SITUATION

As I said at the beginning, I'm not going to address the industry's fast evolving labor situation, and to a certain point I'm going to take a pass. From years of negotiations at national tables on the Company side, or working with the DGA across four cycles through those years when it ran its innovative Forecast Project[25], I learned that if you're not actually at the table, you just don 't know. So the best service you can provide is to keep quiet on the specifics.

But you can look at the broad environmental changes that set the stage for both sides. And we've seen all of those in today's presentation. While I'm sure you can add more items, here's my starting list:

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[25] Author represented NBC News in national table negotiations with technical unions and creative guilds during digital transition of the 1980s and served as consulting analyst to the Director's Guild of America from 2007 to 2020 as it developed and updated the Forecast Project presented across the industry's Guilds and senior managements.

1. Inflation and impact on
    a. costs of living of employees,
    b. operating costs by companies,
    c. interest rates driving up borrowing costs and reducing available debt
2. Reduced viewing of linear services
    a. reducing sub fees, and
    b. reducing ad revenues
3. Reduced growth rates of streaming services
    a. Making finite estimates possible for steady post-growth era
    b. Drying up of capital from both equity and debt
4. Forcing focus on profitability, not expansion
    a. resulting in diminished production slates
    b. resulting in layoffs and general tightening down
5. Forward looking economic uncertainty. Recession, soft landing, maybe we know by early 2024… but that's after new contracts should all be in place.

What an incredibly difficult environment for everyone involved.

ARTIFICIAL INTELLIGENCE (AND LAWYERS)

I thought I should find something to wrap this up with that's a bit more positive… upbeat, even. Some of you may remember this slide. Back in the before times, no matter how bleak the industry, I used to wrap up this session with a rousing group repetition of the phrase, there will always be jobs for lawyers.

Well after covid and with AI, I began to wonder if that was still true. So, of course (with some tongue in cheek) I asked ChatGPT[26]. You might want to listen carefully to the answer…with some pretty weaselly weasel words:

> *""While it is difficult to predict the future with certainty, it is unlikely that the need for lawyers will disappear entirely. The legal system is a complex and constantly evolving field that requires legal expertise and judgment, and there will always be a need for lawyers to provide legal advice, represent clients in court, and navigate the legal system.*

[26] You can see if Chat GPT has changed its mind, or ask it anything else by creating an account at https://chat.openai.com/auth/login?next=%2Fauth%2Flogin%3Fnext%3D%252Fchat

"However, the legal industry is also evolving in response to various factors such as technological advancements, changes in client needs and expectations, and shifting regulatory frameworks. As a result, the types of jobs and skills required in the legal industry may shift over time.

"In particular, the rise of AI and automation has the potential to impact the legal industry, with certain tasks and functions becoming automated or augmented by AI systems. This may change the nature of legal work and the skills required to be successful in the legal industry.

"Therefore, while there may be changes to the types of legal jobs and skills required in the future, it is unlikely that the need for legal expertise and judgment will disappear entirely."

And that pretty ugly summary wraps up my part of this year's Symposium. Thanks to each of you for spending your time with me…and to the Ziffren Institute for the invitation. You'll be able to find a text copy of today's presentation at wolzien.com within a few days.

TW 5/28/23