BERNSTEIN

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Global Internet

Global Internet: Has TikTok ruined the Internet?

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In the 1980s, the US become entangled in a crack-cocaine epidemic. Crack arrived as a cheaper alternative to cocaine when an oversupply of the latter created a market for the former. Cocaine's effects take time to set in, while Crack's effect is instantaneous but wears off quickly driving the user to seek another 'hit'. Crack is incredibly addictive.

A 'digital crack' epidemic. In the late 2010s the world found itself caught in the meteoric rise of TikTok. Gone was the friction of deciding what to watch and 'boring' status update images, replaced by the sensory rush of bite-sized videos powered by a Chinese-owned, black-box algorithm. The algorithm pushed the most viral content directly to the user delivering endorphin hit after hit with each swipe. Governments scrambled to contain the epidemic with India banning Chinese apps — only to see dozens of local TikTok clones emerge. Trump attempted to force a sale of Tiktok to a domestic buyer — sorry Oracle. But it was too late, short-form video (SFV) had arrived.

The other coke wars. You may also recall the Pepsi taste challenge in the 1980s where participants overwhelmingly picked Pepsi over the much more popular Coke on a blind sip. Caught off-guard that users may actually prefer the taste of Pepsi, Coca-cola responding by changing their formula to be more like Pepsi, Coke drinkers revolted and the company backpedalled to separate 'New Coke' and restore the old recipe. People picked Pepsi on a sip as it was sweeter, but preferred Coca-cola over a full can/bottle.

The day the Internet became short-form video. TikTok's success — reaching 1bn + monthly in Q3 2021 — drove incumbents to change their products into SFV clones including Meta's Reels, YouTube's Shorts, Snapchat's Spotlight, Pinterest's Idea Pins, Netflix's Fast Laughs and even Amazon's recently announced Inspire — sound familiar? Lost in the challenged macro, eyeballs and attention are still king and there's no doubt that SFV has been capturing the lion's share of both recently. YouTube has 1.5Bn monthly Shorts viewers watching 30Bn Shorts clips a day; Reels now makes up north of 25% of time spent on Instagram, with the company pivoting towards an algorithmically-fuelled 'Content Discovery' as the future of the platform.

A new race to the bottom. In today's loose definition of social media, there are three stakeholders: (1) who makes the content (influencer); (2) who consumes the content (daily active user); and (3) who pays for the content (advertisers). Short-form video requires all three stakeholders to adapt their behaviours. Are users being pulled away from long-form content and keeping in touch with their friends and family to the endless scroll of random video clips? Are creators with large loyal followings being replaced by amateurs with cameras seeking their 15-minutes of fame the way film stars of old made way to reality TV stars? Is this simply the natural evolution of content formats or does short-form video change consumer behaviour and ruin advertiser economics along the way?

No one likes change, but in Internet it's evolve or die. Users rush to the new thing, creators scramble to create to changing formats and consumer tastes, advertisers want to be where the users are. But what if there's something more deprecatory taking place ruining advertiser economics, creator art, and consumer attention spans along the way... **all desperate for that next 15 second hit.**

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BERNSTEIN TICKER TABLE

Ticker	Rating		19 Aug 2022 Closing Price	Price Target	TTM Rel. Perf.		Adjusted EPS 2021A	Adjusted EPS 2022E	Adjusted EPS 2023E	Adjusted P/E (x) 2021A	Adjusted P/E (x) 2022E	Adjusted P/E (x) 2023E
700.HK (Tencent)	O	HKD	315.00	450.00	(7.5)%	CNY	12.61	11.52	14.39	21.7	23.8	19.0
BABA	O	USD	89.63	130.00	(40.1)%	CNY	52.86	51.97		(10.7)%	7.4%	14.6%
9988.HK (Alibaba)	O	HKD	89.50	128.00	(27.1)%	HKD	7.97	7.84		(11.3)%	7.4%	14.6%
9626.HK (Bilibili)	M	HKD	180.70	175.00	(47.2)%	HKD	(17.83)	(18.13)	(12.23)	(10.1)	(10.0)	(14.8)
BILI	M	USD	22.56	22.00	(60.9)%	CNY	(14.42)	(15.41)	(10.40)	(10.7)	(10.0)	(14.8)
9618.HK (JD)	O	HKD	217.20	315.00	8.3%	HKD	6.60	7.71	12.56	32.9	28.2	17.3
JD	O	USD	54.70	80.00	(5.8)%	CNY	11.34	13.24	21.55	32.9	28.2	17.3
1024.HK (Kuaishou)	O	HKD	74.00	85.00	25.0%	HKD	(4.92)	(2.18)	0.23	(15.0)	(33.9)	321.6
3690.HK (Meituan)	O	HKD	169.90	210.00	4.1%	CNY	(2.58)	(0.76)	1.57			
PDD	O	USD	45.76	80.00	(34.7)%	CNY	9.63	17.34	28.26	32.4	18.0	11.0
GOOGL	O	USD	117.21	140.00	(9.6)%	USD	112.23	28.41	6.21	1.0	4.1	18.9
META	O	USD	167.96	230.00	(48.7)%	USD	13.80	10.33	12.60	12.2	16.3	13.3
SNAP	O	USD	11.56	15.00	(79.7)%	USD	0.49	0.23	0.34	23.5	51.3	34.3
MXAPJ			523.55				37.37	41.09	44.59	14.01	12.74	11.74
SPX			4,228.48				203.41	225.13	244.37	20.79	18.78	17.30

O - Outperform, M - Market-Perform, U - Underperform, N - Not Rated

GOOGL, META estimate is Reported EPS; BABA, 9988.HK valuation is EPS Adjusted CAGR; 3690.HK valuation is ; GOOGL, META valuation is Reported P/E (x); BABA, 9988.HK base year is 2022;

Source: Bloomberg, Bernstein estimates and analysis.

DETAILS

SHORT VIDEO IS EATING THE WORLD, A PM SUMMARY

We're passed the point of no return on short-form video, or SFV

The story should be familiar to close followers of the global Internet sector by now. Douyin launched in China in 2018, and took c. 40% of incremental Internet time between 2018 and 2021. Add Kuaishou, and short video accounted for over 60% of incremental Internet time in China over the same period. A third of that time was newly "created" Internet time, while the rest was conquest from elsewhere. TikTok now counts over 1bn users, while monthly time spent now shooting past and on par with Facebook Blue and YouTube respectively. YouTube has 1.5bn monthly Shorts viewers watching 30bn Shorts clips a day. Reels now makes up north of 25% of time spent on Instagram. Even non-social media properties including Netflix and Pinterest were forced to respond with their own SFV products. And where time goes, ad dollars soon follow — with TikTok on pace to take something like a 16% share of global (ex. China) digital ads dollars in 2022.

The lady doth protest too much

Despite Kylie Jenner's protestations, we think it's beyond controversy at this point to say that short video is no fad. Much in the way that video killed the radio star, 15-second to 3-minute video clips are replacing much of the longer-form video content and static-image scrolling that came before it. Put simply, in 2022 SFV is a better mousetrap for screen time and user attention and will continue to take share from other attention-based businesses. The Chinese experience suggests investors will be best served defining "attention-based businesses" in the broadest sense.

In the spirit of "if you can't beat them...", Meta has arguably gone more "all-in" on pivoting to a TikTok-esque discovery-engine platform than their well publicized metaverse ambitions. YouTube — the godfather of creator platforms — now pushes their Shorts product aggressively. When TikTok was kicked out of India, a plethora of local startups sprung up to fill the void. In China, WeChat Video Accounts has become one of Tencent's largest use of investment dollars in the past couple years, while Bilibili debuted its Story Mode earlier this year — consisting of shorter videos in the vertical full-screen format. Even the likes of Zhihu and Weibo (previously known for being primarily text-based properties) have had stabs at creating short video products — albeit with debatable results.

It's not just the platforms, everyone's doing it.

We stood in-line for some mega-millions tickets a few weeks back because... why not? Sell-side pays well but no one is mistaking this industry for our coverage names. It's that same wisdom of crowds that brought the "creators" to short-form video. Anyone can make a video, anyone can go viral, and anyone can become famous (and possibly rich). Remember the old adage of '15-minutes of fame'? Well, let's just say that too has compressed to your '15-seconds of fame' on SFV. To roughly paraphrase Madonna, fame used to be a by-product of being superb at something... now it's the entire objective that stands on its' own.

While we can certainly point to TikTok's content recommendation algorithm as the key driver for the platform's exponential engagement growth, we shouldn't look past the company's video editing tools removing friction in video content creation. Tiktok's video editing app Capcut alone is the 9th most downloaded app of the year so far. And the results? According to Wallaroo Media, over 80% of TikTok users (c. 800mn) have posted a video on the platform, compare this to the 54mn YouTube Channels.

The 2020s are the SFV decade

It's unambitious to suggest short video as a format will continue to grow — both by creating new screen time and by taking it from others. In China the losers included social (e.g. WeChat), long-form video, gaming, and music. From the perspective of digital ad revenue dollars, short video share of ad dollars should continue to rise — that's probably good for the platforms who can build a competent short video product, and bad for attention-based businesses who can't. It's notable that on-platform advertising within China's e-commerce walled gardens has only lost share very gradually in recent years. Similarly, Tiktok's share wins Stateside have mainly come in brand advertising — while direct response has proven a more difficult nut to crack to date. But like the format, changes here may be inevitable.

Could SFV really be dilutive to digital advertising revenue?

Beyond the implications for share shifts across platforms, a deeper question here is whether higher short video share will structurally dilute the monetisation of user time across the digital ads industry. The efficiency of short video ad monetisation has risen steadily in recent years as the platforms added to ad loads, and as advertisers embraced the format. But even so short video ads in China now monetise at roughly 15% of the level of on-platform advertising with the e-commerce walled gardens (RMB2.51 vs. c. 36 cents RMB per hour of user time in Q1 2022). Within Douyin, ad loads now standing in the high-teens percentages. Most of our ad industry contacts take the view that a ceiling is now in sight, perhaps around the 20% mark or slightly higher. This leaves eCPM growth as the main lever for revenue growth in the outer years — questionable at least nearer term, given the weak macro backdrop.

With a more mature digital ad market in the US, TikTok couldn't simply follow the same playbook of flooding the market with cheap ad inventory. Much of digital ad spend in the US skews towards direct response, where dollars are spent with a hard ROI or conversion event and two giants — Google and Meta — have best-in-class first-party data and ad targeting algorithms to command economic capture in the digital ad value chain. TikTok went the easier path going after lower CPM top-of-funnel and brand ad spend where eyeballs and engagement matter more than clicks and conversions and has seen remarkable success. It remains unclear whether video platforms can unlock the higher CPM bottom-of-funnel DR, but if all social content shifts to SFV and they can't unlock DR the consequences could be severe - YouTube monetizes at half the rate per minute spent vs Facebook Blue ($0.014 vs $0.007)

SFV and direct response are oil and water, but is there an emulsifier?

Picture yourself opening your favourite social media app. Scrolling through posts of friends, family, people you follow. Clicking through stories or liking posts and commenting to your heart's content. This is active behaviour, where you "lean-in" and engage with the media and have a higher propensity to engage with digital ads that require an action to be taken. But SFV consumption more closely resembles that "lean back" behaviour of watching TV — sure you're swiping away but is that really any different from changing channels on a remote? This matters because lean back media decreases your propensity to engage with an ad resulting in lower CPM brand ads, à la commercials.

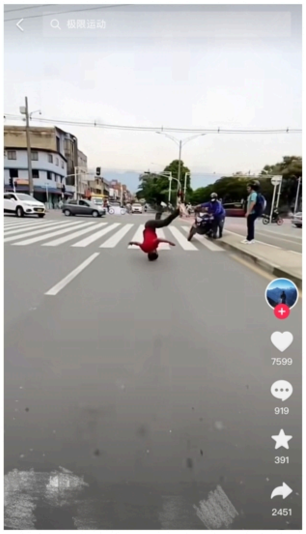
One of the critical questions around the impact of short video proliferation relates whether growth in short video engagement share — and the resultant increase in ad inventory — will merely drive market share shifts within attention-based ads, or whether it can begin to take market share in direct response advertising too. In China, it was notable that when the economy fell into a crunch during the March and April lockdowns, advertisers cut back sharply on brand advertising, including the short video platforms. This, while spend on the e-commerce walled gardens remained relatively more robust on aggregate. Merchant feedback on Douyin's attempts to attract high-intent search has been mixed. We lean sceptical given high-intent search feels antithetical to Douyin's emphasis on discovery and entertainment.

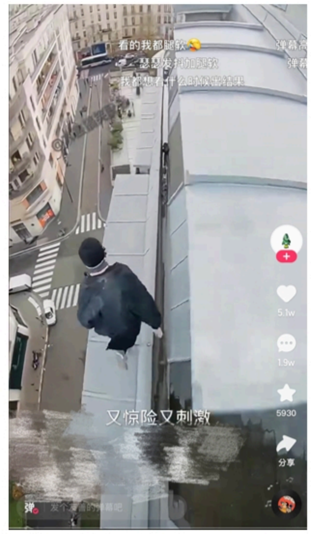
U.S.consumers have grown accustomed to skipping through ads on lean-back entertainment platforms (a great time to get a snack) with linear television still a stubborn home from nearly $65bn in brand ad spend. In the digital space, Twitter (85% brand) and YouTube (~50%+ brand) represent news and cable channels accordingly as lean back media. Just providing direct response isn't sufficient to meaningfully change user behaviour — Twitter has tried repeatedly, but they simply don't have the first-party data nor the user behaviour. More niche plays like livestreaming e-commerce has seen promise in China is yet to catch fire in the U.S.

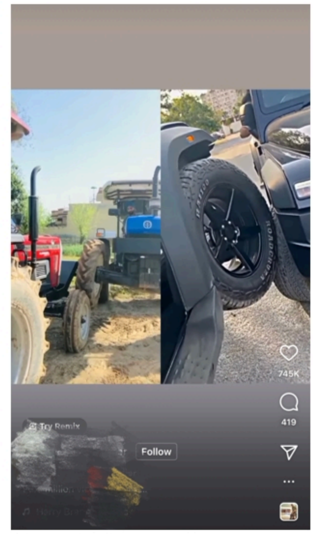
Can TikTok scale direct response in absence of that first-party data or change user behaviour? Monetizing short video is still in very early days and the landscape is not set. Ironically, some advertisers have had their own '15 seconds of success' with performance ad campaigns on TikTok ("TikTok made me buy it"), and brands can uniquely unlock value through different types of advertising like branded challenges (see Chipotle's super successful #GuacDance campaign). Meta has a well-oiled performance marketing business built on first party data and lean-in user behaviour which could translate somewhat to Instagram Reels advertising. Initial ad traction on Reels is promising, but time will reveal all.

EXHIBIT 1 : **Spot the difference - the short video format has gone global, and looks set to grow as competition expands**

Douyin screenshot	Video Accounts screenshot	Kuaishou screenshot	Reels screenshot

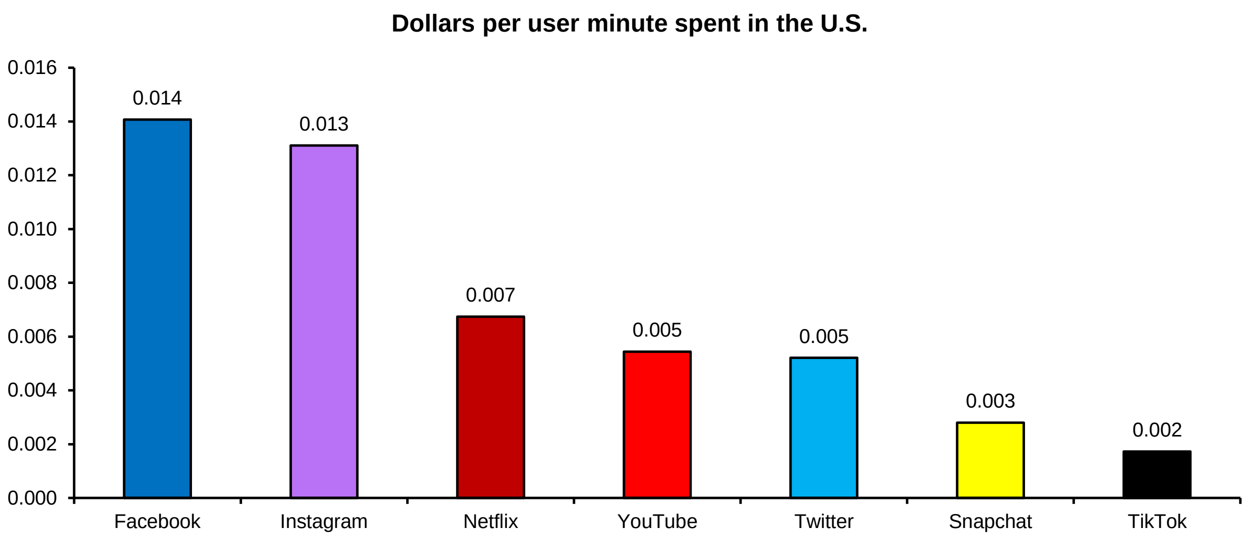






Source: Douyin, WeChat, Kuaishou and Instagram.

EXHIBIT 2 : **Lean-back video platforms have monetized at lower rates than more active platforms like Meta**



Source: Company reports, CNBC, eMarketer, Bernstein estimates and analysis

'VIDEO KILLED THE RADIO STAR' AND WHY SFV WAS INEVITABLE

The evolution of media formats

We've previously written about TikTok's secret sauce here, but we can summarise the recipe for success across five key dimensions. We'd emphasise that there's a natural evolution across each dimension, and you can see why SFV fits the mode of the next great media format:

- **Format**: humanity's preferred media format has evolved from audio (pre-printing press days) -> print/text (newspapers) -> images (magazines) -> video (films and television). While not as linear, the preferred Internet media formats has also evolved towards more rich-media formats away from text-heavy websites and image-heavy social media to video.

- **Friction**: legacy media has long solved for friction by effectively removing or severely limiting consumer choice. Newspapers delivered to your doorstep each morning with content decisions made and overseen by an editor. Television had limited broadcast networks with producers once again decided which content was available to watch and when. The rise of cable TV led to the explosion of new channels **creating friction** as consumers had too many viewing options leading to increased time spent deciding what to watch.

  - Enter Internet video which offered households plenty of choice and indecision on what to watch on Netflix -> YouTube brought this down to 'one-click', select one video and an algorithm auto-plays recommended videos -> TikTok went to 'zero-click', the app opens to a video playing automatically while an algorithm decides what video you see next = **TikTok is digital television**

- **Duration:** while there's conflicting research on whether human attention spans are getting shorter, what is generally agreed upon is (1) we spend an increasing amount of time multi-tasking; (2) we check our phones way more often than we think (e.g., a UK-based study shows responds believe they check their phone ~25x per day when reality is closer to ~60x); and (3) a clear spike in the availability of shorter, bite-sized content. Snapchat, for example, works with publishers like SportsCenter to create ~5min sports highlight shows (vs. the 24-minute shows we grew up with). The now defunct Quibi was born on the belief that there was a gap in professionally-produced content delivered in bit-sized format. TikTok started with 15-30 second videos though has gradually increased the max length threshold to several minutes.

- **Device:** the medium is always the message, and in this case the smartphone has formalized specific behaviours like vertical content consumption, engaging with content via likes/comments, swiping up/down/left/right... effectively TikTok.

- **Distribution:** Mobile also enabled another key element of TikTok's success namely the creation and distribution of user-generated content. Newspapers have publishers and journalists with little room for outside opinions beyond a weekend column; Television content is incredibly expensive to produce and distribution is finite. Social media apps simplify the creation problem - it's easy to post thoughts on Twitter and the smartphone's camera and editing tools make it easy for anyone to create a video.

There is one additional catalyst to highlight which is funding. Bytedance and TikTok came of age in a frothy market where venture investors funnelled billions of dollars into startups off the premise of exponential user growth. The cost of capital was effectively free. Such an environment allowed Tikok to be one of Meta's and Snapchat's largest advertisers over the past few years. With the funding, TikTok and SFV may well still have happened, albeit a few years later.

A framework to assess Internet media

Like all media, short video platforms needs to solve for different stakeholders. The triangle framework we like to use asks three questions:

1. Who is creating the content?

2. Who is watching the content?

3. How is the content being monetized?

You can see how various media platforms have a spike for different stakeholders - YouTube offered a new breed of creators a chance to gain distribution and a 55% rake of generated revenues; Facebook offered a new breed of brands/sellers/applications the chance to go find their target market in a cost-effective manner. To launch a new media format, you need to be able to appeal to all three stakeholders. Here's what's the evolving value proposition looks like for SFV:

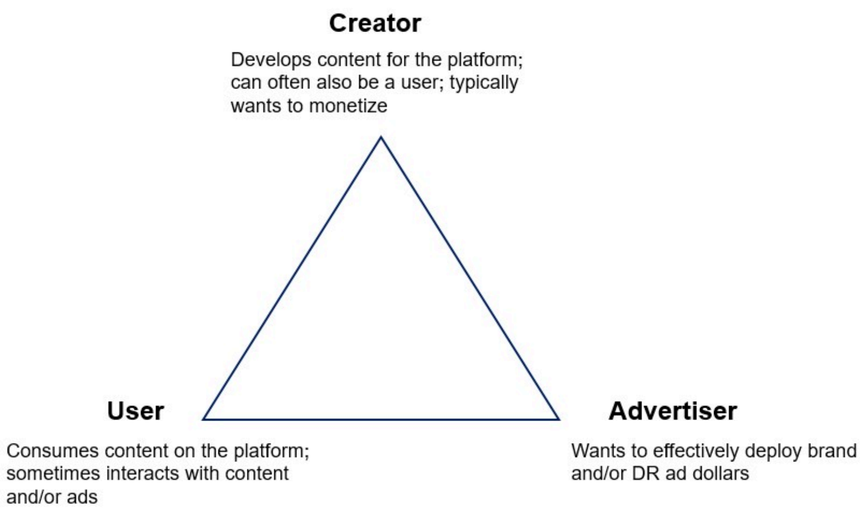
1. **Users -** Bite-sized, lean-back entertainment requires little time commitment vs sitting down to watch 8 60-minute episodes on Netflix. Zero-click algorithm pushes trending videos they think you'll like.

2. **Creators -** Easy-to-use tools enables a new wave of creators to make a video telling a story, dancing, or doing a challenge without the need to worry about building a narrative in longer-form content; The algorithm offers any creator the chance to

go viral without the need to build up a large content library and loyal following. Social media and long-form video creators can also use the new fomat to complement existing meda mix and increase followership.

3. **Monetization -** Like through advertising as unclear whether there is demand for consumer paid subscriptions. Given the viral nature of the platform, brand ads tend to work best by having creators and followers all watch and recreate ad campaigns.

EXHIBIT 3 : **Key stakeholders of short form video**



Source: Bernstein analysis

EXHIBIT 4 : **Video made up 7 of top 10 U.S. apps of 2021...**

2021 U.S. app rankings

1. TikTok	6. Zoom
2. YouTube	7. Cash App
3. Facebook	8. Netflix
4. Instagram	9. HBO Max
5. FB Messenger	10. Snapchat

Source: App Annie, Bernstein analysis

EXHIBIT 5 : **... and 5 of the top 10 apps globally**

2021 Global app rankings

1. TikTok	6. Snapchat
2. Instagram	7. FB Messenger
3. Facebook	8. Zoom
4. WhatsApp	9. CapCut
5. Telegram	10. Spotify

Source: App Annie, Bernstein analysis

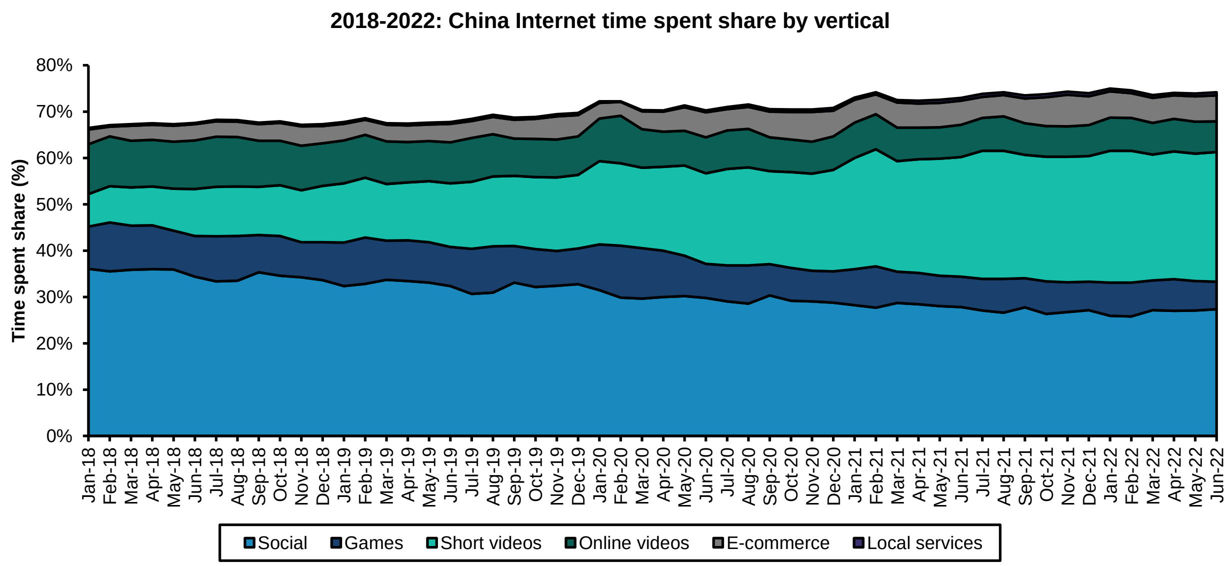
SPENDING A LOT OF TIME WATCHING SFV

How much more short video can China watch? The evidence is mixed

Between 2019 and 2021, we think short video time spent growth in China was 65-35 split between share wins from other formats (social, gaming, music, etc.) and "newly created" Internet time. At this point though, a question could probably be asked of how much more short video China can realistically watch. In Q2 2022 Douyin and Kuaishou (and their respective "Express" apps) combined for something like 118 minutes per day per DAU — almost three times the 40 minutes or so that Tiktok has managed to date. Don't people have better things to do?

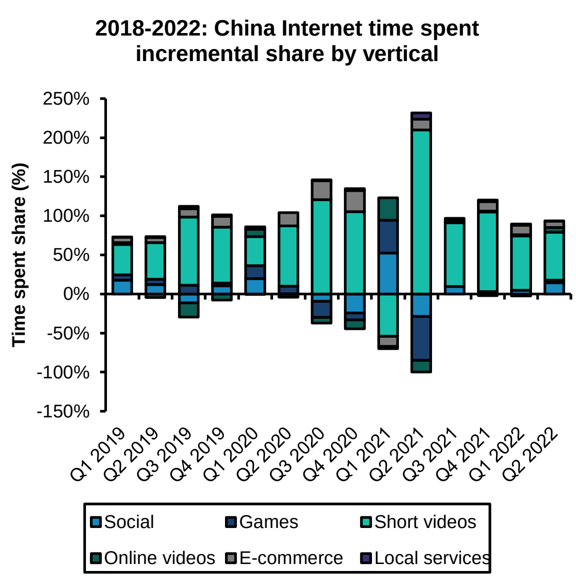
Looking over shorter horizons, it's notable that while short video time spent continues to grow at 20-30% year on year, short video time share has remained relatively stable around the 27-28% mark since July 2021. Daily time spent per DAU has remained relatively steady over the same period — Kuaishou reported 128 minutes of daily time spent during Q1, but guided for a moderation in time spent in Q2. Moving on to other short video platforms, it's notable that WeChat time spent has remained relatively steady in recent quarters — despite Video Accounts engagement hitting something like 400-500mn DAUs and around 30 minutes of daily video view time. Bilibili daily time spent has continued to grow solidly, though the rate of growth has actually decelerated modestly post the introduction of Story Mode.

EXHIBIT 6 : **Short video has been the overwhelming winner of Internet time in China since 2018-2019, although the last 6-12 months have seen a stabilisation of sorts**



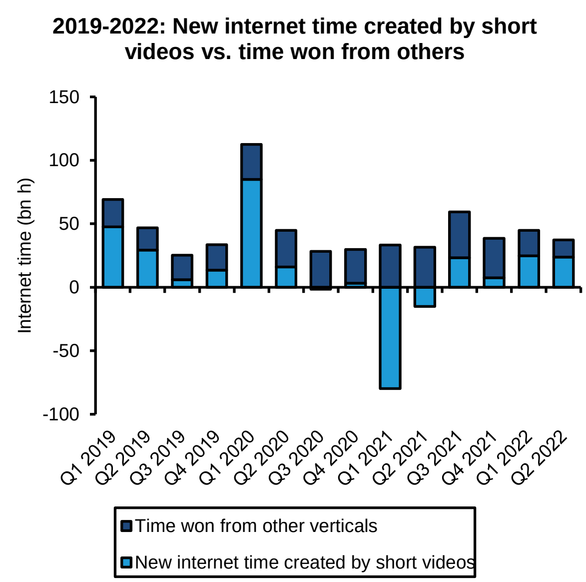
Source: QuestMobile and Bernstein analysis.

EXHIBIT 7 : **Short video took by far the largest share of incremental Internet time in recent years...**



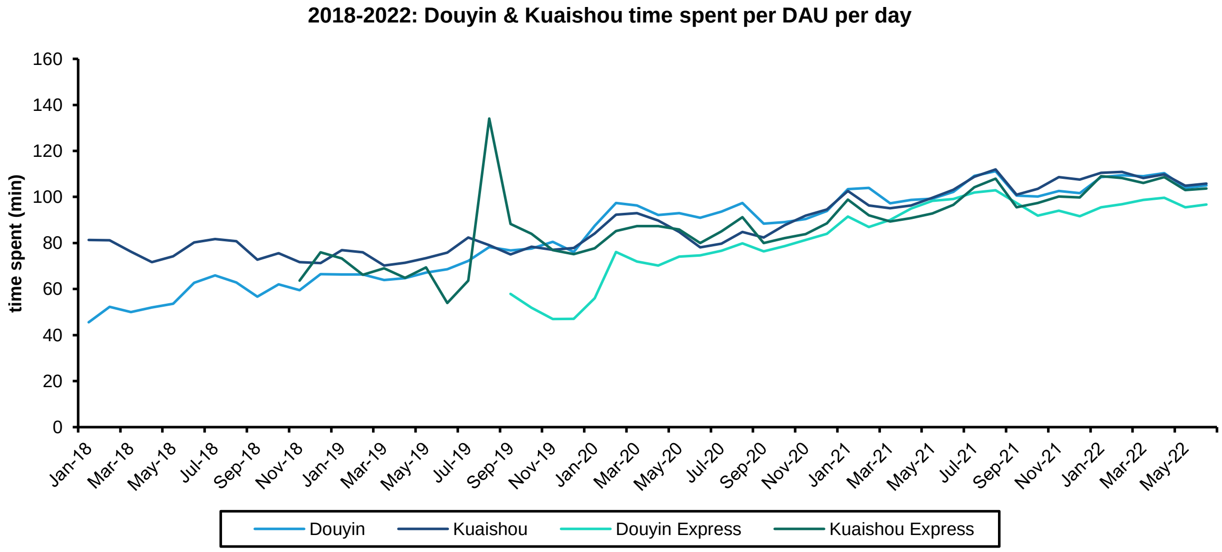
Source: QuestMobile and Bernstein Analysis.

EXHIBIT 8 : **...both by winning screen time from other media formats and by "creating" new Internet time**



Source: QuestMobile and Bernstein analysis.

EXHIBIT 9 : **Daily time spent has shown signs of levelling off, at around 120 minutes a day**



Source: QuestMobile and Bernstein analysis.

In the U.S., SFV time spent keeps growing, but time donors may be surprising

Outside of China, short-form video is similarly compelling. Lean-back consumption has always been how most U.S. users spent time across all media consumption, including mobile. Within this category, users have already shown their affinity towards short video. Per multiple sources, TikTok has passed YouTube, Instagram, Twitter, and FB Blue to be the most-watched social app. Meta's short video product, Instagram Reels, has been named Meta's top priority and comprises 25%+ of the time users spend on Instagram. YouTube Shorts now generates 30Bn daily views and counts 1.5Bn MAU, while Snapchat Spotlight demonstrates strong Y/Y growth metrics like 59% Y/Y growth in time spent.

It's helpful here to frame the SFV and TikTok threats as a size of the pie vs. share of the pie type of framing. The three questions to answer are: (1) how much mobile time is spent online and how fast is it growing; (2) what share of said time is lean-back and how fast is it growing; and (3) what share of time is SFV/Tiktok and are there share donors or is it all incremental?

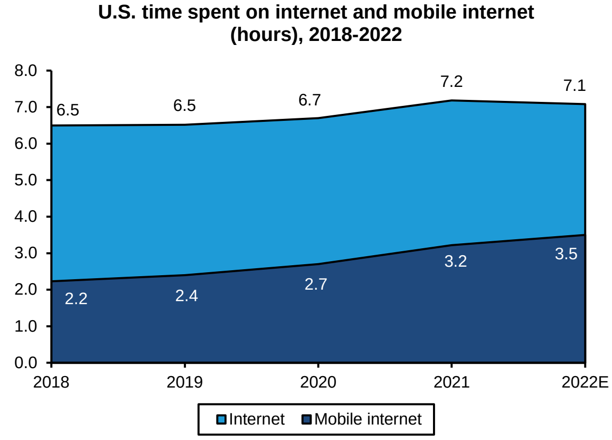
1. In the U.S., time spent on mobile Internet is 3.5 hours, which has grown at a 12% CAGR since 2018, and mobile time spent with media has contributed substantially to this. For context, mobile accounts for 33% of total media consumption time across digital and traditional and around 50% of total Internet, so there is still room to grow.

2. Video accounts for ~29% of mobile time and ~35% of time spent on social media, though we expect these numbers to reach and 30% and 39% respectively by the end of next year. Growth is expected to be driven by the continued migration of longer-form TV properties to digital (e.g., Netflix, Disney, YouTube) and SFV across both stand-alone apps (e.g., TikTok, YouTube) and social (e.g., Meta)

3. TikTok's metoric rise in time spent has started to taper as competing products emerge and law of large numbers. We believe most of the engagement erosion should come at the expense of longer-form and alternative media alongside social media replacing news feeds with video ones.

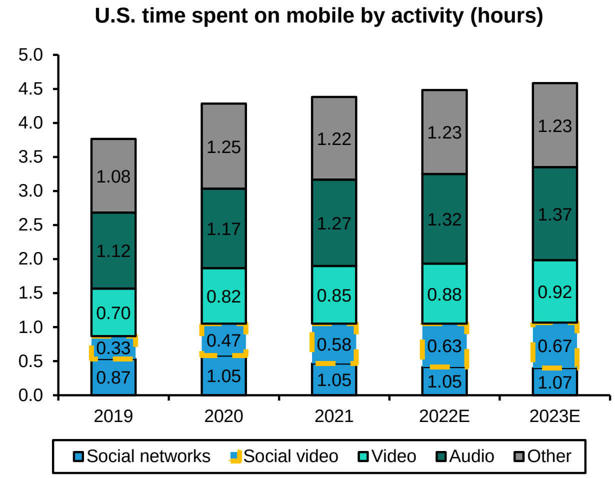
We believe some core Internet/social use cases will remain stable (if not growing), as TikTok's rise in time spent has come from more mobile time, not directly from core connection uses. That said, we don't believe the total time spent on short video has peaked yet in the U.S. Commentary across our coverage suggests further room to grow. With these companies pushing their short video products so aggressively, potentially at the cost of their "core" initial attractive platforms, short video has shown signs of being cannibalistic to time spent, yet has coincided with total time growth driven by a pandemic.

EXHIBIT 10 : **U.S. time on mobile internet especially increased during the pandemic and continues to grow**



Source: Hootsuite, We Are Social, GWI, Bernstein analysis

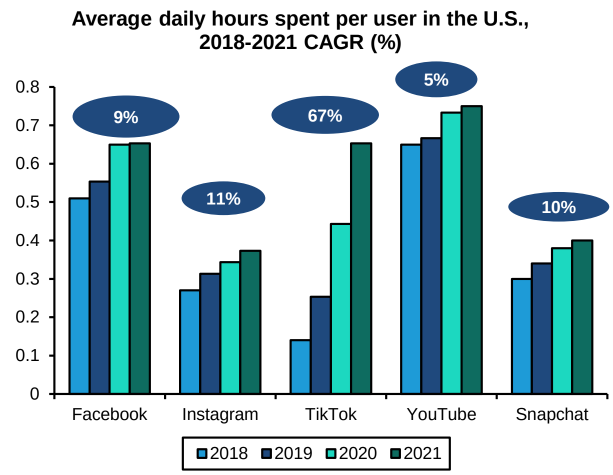
EXHIBIT 11 : **Time spent on social video and video have grown, both as the overall pie has grown and as social non-video has declined**



Source: eMarketer, Bernstein estimates and analysis

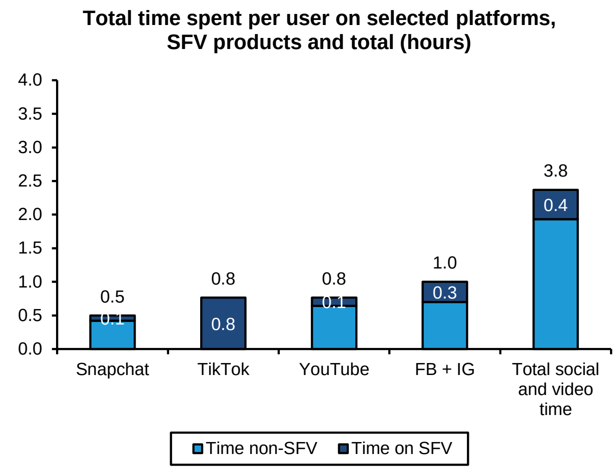
Note: Video excludes time spent watching video on social apps

EXHIBIT 12 : **While time spent on SFV has grown tremendously, apps like Instagram, TikTok, and Snapchat haven't seen declines in time spent**



Source: eMarketer, App Annie, Bernstein estimates and analysis

EXHIBIT 13 : **SFV is taking an increasing share of time spent on common platforms and total social/video time**

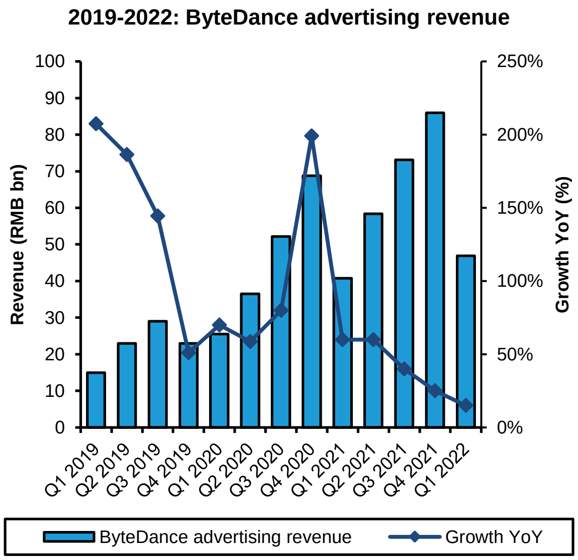


Source: eMarketer, Company reports, Bernstein estimates and analysis

KUAISHOU'S GROWTH ARGUES AGAINST SHORT VIDEO BECOMING WINNER TAKES ALL

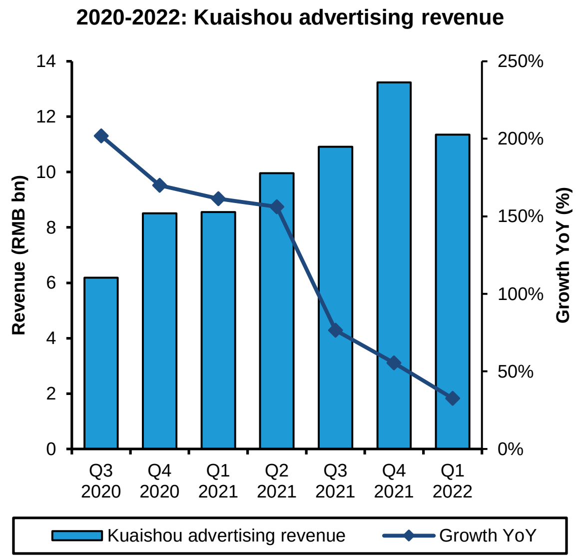
Kuaishou's recent growth gives us hope that short video will not become winner takes all. In contrast with Douyin, Kuaishou's core user base skews more towards China's lower tier cities. Compared with richer cousin Douyin, Kuaishou was much slower to ramp up ad monetisation, and we expect the company's 2022 ad revenue to be just 15-20% of Douyin levels in the same period. But over the past year brand advertisers have increasingly embraced the platform as a source of incremental user traffic, and ad loads have climbed as a result. More recently, macro headwinds and China's lockdowns in March and April drove a sharp slowdown in the economy, and ad revenue growth in turn. But looking ahead we think greater headroom on ad loads, livestreaming e-commerce growth (which drives on-platform traffic acquisition spend from merchants), and improving ad tech can mean its ads revenues can grow further — for the most part independently of proceedings at Douyin.

EXHIBIT 14 : **ByteDance's advertising revenue grew 15% in Q1 2021**



Source: Corporate reports and Bernstein analysis.

EXHIBIT 15 : **Kuishou's advertising revenue grew 33% in Q1 2022**



Source: Corporate reports and Bernstein analysis.

CAN THE NEWCOMERS IN CHINA BREAK THROUGH?

Aside from incumbents Douyin and Kuaishou, WeChat Video Accounts and Bilibili's new Story Mode represent the two main short video challengers in our coverage. We'd describe both as works in progress, with content depth and user browsing habits representing important development areas. Financially, a problem both platforms face is that short video growth actually dilutes ad monetisation for a period while user engagement shifts away from more advertising formats, and short video ad loads remain low (a more constructive view is Tencent has already suffered this problem in recent quarters as content and bandwidth costs rose while Video Accounts time spent remained unmonetised).

WeChat Video Accounts: the best of the rest, but...

WeChat's Video Accounts represents the most notable new challenger in the short video space, and has arguably been the most successful outside Douyin and Kuaishou. Backed by WeChat's 1.2bn MAUs, Video Accounts now has over 800mn MAUs, 400-500mn DAUs, and our industry interviews point to around 30 minutes of daily user engagement. Disclosure from Tencent pointed to Video Accounts time spent now reaching 80% of Moments levels. Tencent has invested heavily in Video Accounts content in the past 12-18 months, including by hosting a number of successful online concerts (to the point where Douyin recently felt the need to host a competing concert at the same time). Speaking on the company's most recent quarterly earnings call, Tencent management argued that Video Accounts' monetisation can eventually match that of Moments, which we estimate currently stands in the RMB35-40bn a year range.

Tencent recently began to introduce ads on Video Accounts, and we think current Video Accounts engagement will be sufficient to support a healthy level of ad revenue (industry chatter suggests Tencent may be targeting RMB10bn of Video Accounts revenue in 2023). That said, challenges remain in our view both on the depth of creators and content (partly constrained by Tencent's insistence on a more "grown up", more informational media slate), and the continuousness of user browsing habits (e.g. scrolling through multiple videos as opposed to simply sharing videos with one another in place of official accounts pages) which is important for ad load growth. The fact Video Accounts is accessed via a menu entrance within WeChat rather than being a standalone app has also been cited as a bottleneck for engagement growth. Ad industry contacts we've spoken with have also raised the possibility of cannibalisation of ad budgets across Video Accounts and other pockets of WeChat ad spend.

Bilibili: how quickly can monetisation ramp up?

Bilibili's Story Mode was launched in April of this year, and management speaking on the company's Q4 results call argued that the new format can drive a doubling of video views on the platform, and that this would a net increase — causing minimal cannibalisation of existing time spent. Story Mode recently received its own entrance in the Bilibili app, having previously been embedded in the video feed.

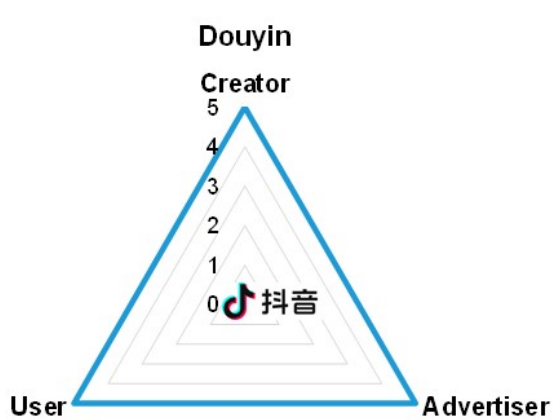
We expect Story Mode to help contribute incremental video videos, and therefore room for additional ad inventory. Ad industry contacts we spoke with were generally open-minded to the monetisation potential of Story Mode. That said, Bilibili's issues with targeting performance (smaller user scale and longer video views means fewer behavioural data points than Douyin et al.) will take time to get right. Management's assertion around the avoidance of cannibalisation also feels like something that falls in the "trust but verify" bucket. Financially, motivating creators on the platform to create short video content (and helping them find a way to monetise said content) while balancing the revenue sharing cost burden and impact on gross margins represents a task for management going forward.

EXHIBIT 16 : **WeChat Video Accounts and Bilibili's Story Mode represent the main challengers in China to incumbents Douyin and Kuaishou**

	Douyin	Kuaishou	WeChat Video Accounts	Bilibili Story Mode
User	c. 600mn DAUs; mature recommendation algorithm; ground zero of the SFV explosion	c. 350mn DAUs as of Q1 2022; greater emphasis on private domain (e.g. social follows), user base more skewed towards lower tier cities	300-400mn DAUs as of Q1 2022; growth driven by increased content sharing within WeChat messaging, Video Accounts entry point within WeChat	c. 80mn DAUs; younger audience with 86% of users below 35 years old; Story Mode entrance less obvious - no separate tab within the Bilibili app
Advertiser	Massive winner of advertiser traction and ad spend share in recent years; growth impacted by regulations targeting end markets like gaming, but still outgrowing industry	Advertisers historically skewed more towards white label merchants, but brand advertiser traction improved over 2021-2022; 35-40% of ad revenues related to on-platform merchant TAC	Encouraging early traction among brand advertisers; management pointed to a faster ramp than WeChat Moments (5 quarters to RMB1bn ad revenue)	Predominantly brand advertising focused, while performance advertising has historically been a weak point as smaller user base and longer video views less conducive to data gathering
Creator	Established tools to help creators shoot and polish videos; Xingtu platform helps creators connect with advertisers	Video creation tools simlar to Douyin, albeit somewhat less polished; a greater proportion of users also generate videos	Relatively basic video creation tools; distribution partly via algorithm, partly via WeChat social graph	Video editing tools in-app backed by music library

Source: Bernstein analysis.

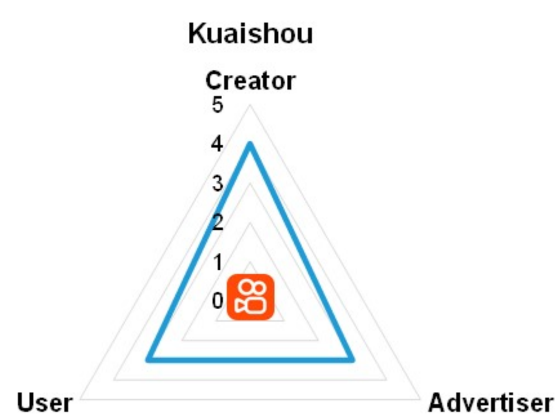
EXHIBIT 17 : **Douyin sets the standard for short video engagement and monetisation - the question from here is more about growth runway**



Source: Bernstein analysis, Wikimedia Commons

Note: 5 is the highest rating

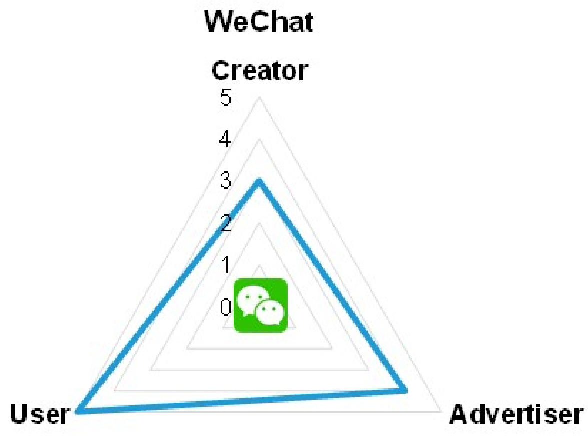
EXHIBIT 18 : **Kuaishou's user base skews in favour of China's lower tier cities, but the company has made solid progress attracting brand advertisers**



Source: Bernstein analysis, App Store

Note: 5 is the highest rating

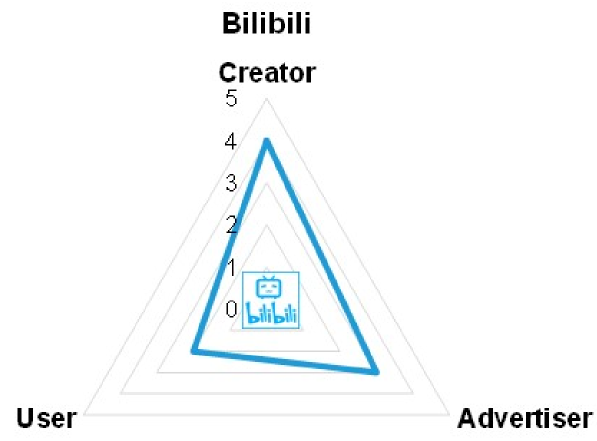
EXHIBIT 19 : **Video Accounts benefits from the WeChat social graph, and advertiser feedback has been strong, but creator and content depth remain works in progress**



Source: Bernstein analysis, App Store

Note: 5 is the highest rating

EXHIBIT 20 : **Bilibili's user base is smaller than peers, but advertising monetisation should benefit from story mode**



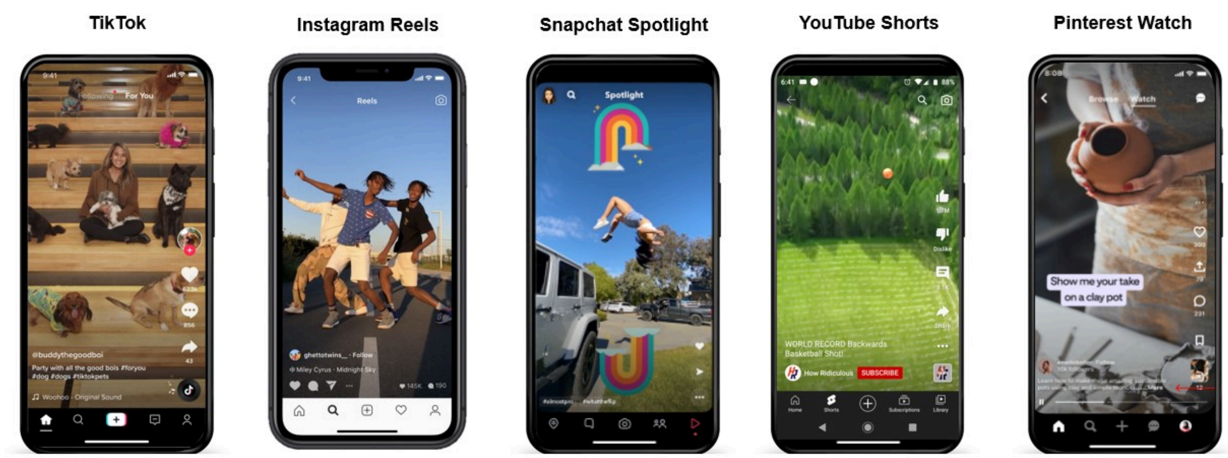
Source: Bernstein analysis, Wikimedia Commons

Note: 5 is the highest rating

SFV IN THE U.S.

After Douyin's strong showing in China and TikTok's meteoric global rise, short video competitors also popped up internationally. In the U.S. especially, the major social companies started offering short video feeds very similar to TikTok's during the pandemic. So far, the U.S. short video products have been largely herding engagement to some success - for example, Instagram Reels now comprises ~25%+ of the time users spend on Instagram, and YouTube Shorts has 1.5B MAU. Some of this engagement is cannibalistic, but users are still flocking to the addictive short video feeds and spending incremental time on the platforms. The main question for the U.S. products is now shifting to monetization, including the timeline for heightening ad load and ad efficacy (especially direct response) for this medium where users have gotten accustomed to quickly scrolling past ads.

EXHIBIT 21 : **Since TikTok's massive success, the short-form video feed has become an increasingly popular medium across U.S. social apps**



Source: Company websites, Bernstein analysis

EXHIBIT 22 : **Major U.S. competitors' offerings have similar capabilities and features**

	TikTok	Reels	Spotlight	Shorts
Year generally released	2016	2020	2020	2021
Owner	ByteDance	Instagram (Meta)	Snap	YouTube (Google)
MAU	1B+	N/A (2B on IG total)	125M+	1.5B
Video length limit	10 mins	90 secs	60 secs	60 secs
Direct messaging	Yes	Yes	If friends	No
Stories on app	Yes	Yes	Yes	No
In-app video editing	Yes	Yes	Yes	Yes
Creator funding*	$2B globally ($1B in US)	$1B across FB/IG	~$1M/day	$100M for Shorts only

Source: Company reports, Bernstein analysis

*Note: Creator funding as originally announced; more recent macro environment may have dampened this funding.

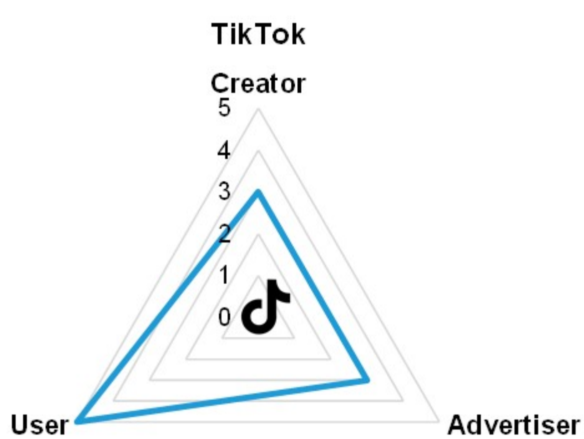
EXHIBIT 23 : **Though the SFV feed looks similar, different platforms can offer unique value propositions**

How do different stakeholders look at the different platforms?

	TikTok	Instagram Reels	Snap Spotlight	YouTube Shorts	Netflix Fast Laughs	Pinterest Watch
User	Strong addictive algorithm, no friction to SFV (like turning on the TV); a lot of content is first posted here	Algorithm still admittedly in progress; still a mix of true content discovery and those you follow; younger users may engage more/join	Entertainment, esp for some Gen Z once they're already in the Snap app	More content from those you subscribe to, though algorithm is still in progress	Entertainment for shorter time periods, way to learn about/watch new shows and movies	Entertainment that's more engaging and dynamic
Advertiser	Offers decent mousetrap on brand, esp. targeting Gen Z; DR remains more experimental; no social graph for targeting	Strengths of social graph, first party data, and best-in-class ad tech; Reels still requires new creative, still unclear how/if DR scales	New, likely cheaper ad format for advertisers if Spotlight opens ad inventory	Not as appealing as the main YouTube ads will be more appealing and known	Could offer brand-safe, curated Netflix advertising, though advertisers may lean towards the main upcoming CTV ad product	Continued brand ads targeted to a unique demographic
Creator	Easy to make videos and relatively easy to go viral; difficult to consistently monetize	Usage and tools still in progress; creators could use Reels to complement existing content in other formats	Intuitive to use (just like sending a Snap), could go viral/get discovered/be paid, though Snap historically homegrown creators	Good way to discover new subscribers, connect with existing followers; primarily monetize on main channel	No external creators; Netflix can introduce more viewers to more content	Usage, tools, and dynamic still in progress; still a way to connect with existing followers

Source: Bernstein analysis

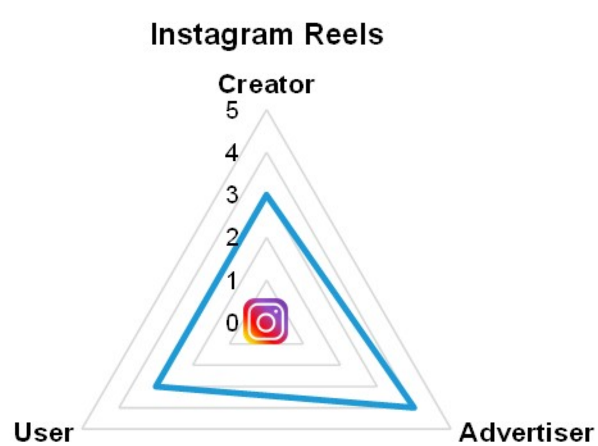
EXHIBIT 24 : **TikTok offers the best user experience, while advertising is still in early days and creators may find it difficult to consistently monetize**



Source: Bernstein analysis, Wikimedia Commons

Note: 5 is the highest rating

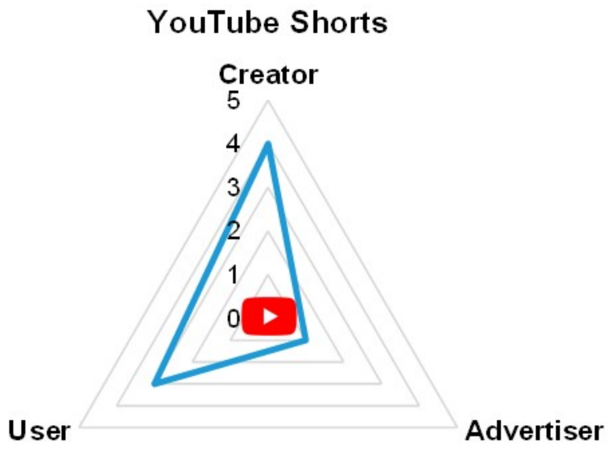
EXHIBIT 25 : **Meta has best in class advertising capabilities, though the user and creator experiences are still in progress**



Source: Bernstein analysis, Wikimedia Commons

Note: 5 is the highest rating

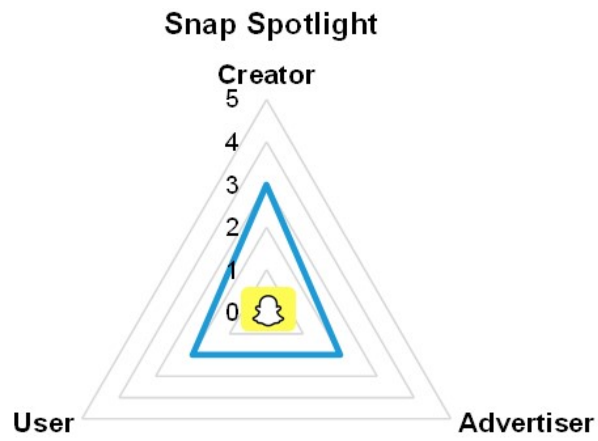
EXHIBIT 26 : **YouTube Shorts offers a strong creator ecosystem, as well as a decent user experience though advertisers may prefer the main product**



Source: Bernstein analysis, Wikimedia Commons

Note: 5 is the highest rating

EXHIBIT 27 : **Snapchat Spotlight offers easy short video creation, with some brand safe ads and additional user entertainment**



Source: Bernstein analysis, Wikimedia Commons

Note: 5 is the highest rating

Instagram Reels

Instagram was the first major platform to launch a TikTok competitor in the form of Reels, back in August 2020. We've largely viewed Reels' beginnings as more of a defensive move, to keep legacy media creators happy and to keep users from seeking short-form video elsewhere. Instagram is still just a bigger platform with 2B MAU compared to TikTok's 1B, and the most-followed Instagrammer has 477M followers compared with the most-followed TikToker at 148M.

In more recent times, Meta has pivoted from connections and the social graph to going all in on content discovery, similar to TikTok. In terms of product, Meta intends to primarily focus on Reels to execute this. So far, Meta has seen substantial engagement on Reels, with 25%+ of the time spent on Instagram through Reels. Management has indicated their intent and demonstrated confidence to continue pushing Reels against the metrics they have seen so far, though monetization remains in early stages. While we're not certain if Reels will be able to monetize at the same impressive clip as Meta's Family of Apps given user propensity to scroll past short video ads, we do think engagement at Reels is likely to be quite competitive with the product likely to become a category leader. We've discussed updates on Reels and Reels monetization more in depth in our [2Q Meta recap](#).

YouTube Shorts

YouTube launched YouTube Shorts in 2021, also largely seen as a direct competitor to TikTok. So far, the Shorts product has seen substantial engagement and growth, with management most recently reporting 1.5B MAU and 30B daily views. We believe YouTube is the most threatened by the advent of short form video and TikTok. With TikTok moving into longer video (raising the video length max to 10 minutes) and offering a very similar use case (kill time watching algorithmically-recommended videos featuring brand ads), it seems to be a larger threat to YouTube than any other company in our coverage. Ads across these platforms will likely be coming from the same advertiser pool as well, as Shorts monetizes via YouTube ads.

Still, we see Shorts as an easy complement to the extremely strong YouTube creator system. YouTube has always been the home for video on the Internet, including searches and uploads. YouTube is also where creators from all platforms tend to direct viewers towards, given the much more rewarding and predictable monetization scheme. Shorts will provide another way for creators to develop and monetize content for their most dedicated fans, and discover new followers as well - particularly given the prominence of the "subscribe" button on every Shorts video. We don't think there's a problem with brand dilution with Shorts, given that new Shorts videos don't have to set off notifications – they'll just be there for viewers who are interested and generally have already viewed Shorts.

Snapchat Spotlight

Launched in November 2020, Spotlight is a way for Snapchat users to share regular Snaps they take with a broader audience. To incentivize this, Spotlight came out with a huge creator payments fund that kept users engaged and submitting videos in the beginning. Significant sums were paid out to creators (e.g., hundreds of thousands of dollars for 15 second videos and ~$1M/day), though the formula for payments has always been somewhat opaque and more recent cost pressures will likely impact this incentive model.

As Snap already attracts nearly all of its core base in its most active geographies, we believe that Spotlight primarily exists to keep users in the app. The user overlap with TikTok is definitely real, though again, we contest that there's enough time to go around and the use case (connection vs. consumption) is fundamentally different. Snap has managed to navigate this tension with TikTok fine so far, as user numbers have remained robust even as topline has wavered. With Spotlight, we could see some erosion of time spent on the Discover product, though we and investors don't expect substantial emphasis on Spotlight and monetization of in the near future.

THE IMPLICATION FOR AD PRICING

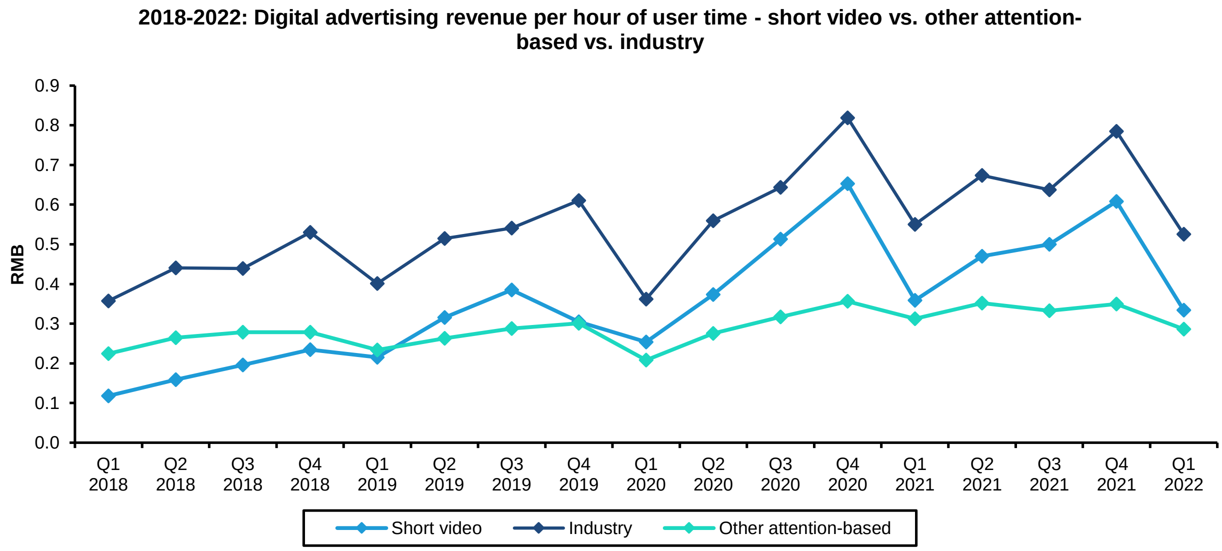
The experience in China

At the industry level, and for advertising platforms with a mix of short video and non-short video attention-based ads as the driver of their business, an important question going forward will be whether higher short video mix of user attention means aggregate moneisation of user time is diluted — either on a temporary basis while the platforms focus on building short video traction and keep ad loads low, or on a permanent basis because attention-based ads simply monetise at a lower rate than high-intent, direct response ads.

In China, we estimate that the top transactional platforms monetised at a rate of about RMB2.51 per hour of user time in Q1 2022. This has come off slightly in recent quarters, reflecting weak consumption demand in China, and increased competition in the e-commerce space. Nonetheless, monetisation efficiency here has remained multiple times higher than that of attention-based ads, which stood at just over 30 cents RMB of ad revenue per hour of user time in Q1 2022. Within the latter, short video based ad monetisation has been higher than average since mid-2019 (one could argue that this was helped by the growth of livestreaming e-commerce on these platforms, and merchants paying for traffic acquisition). But 36 cents of ad revenues per hour in Q1 2022 was still only a fraction of transactional platform levels.

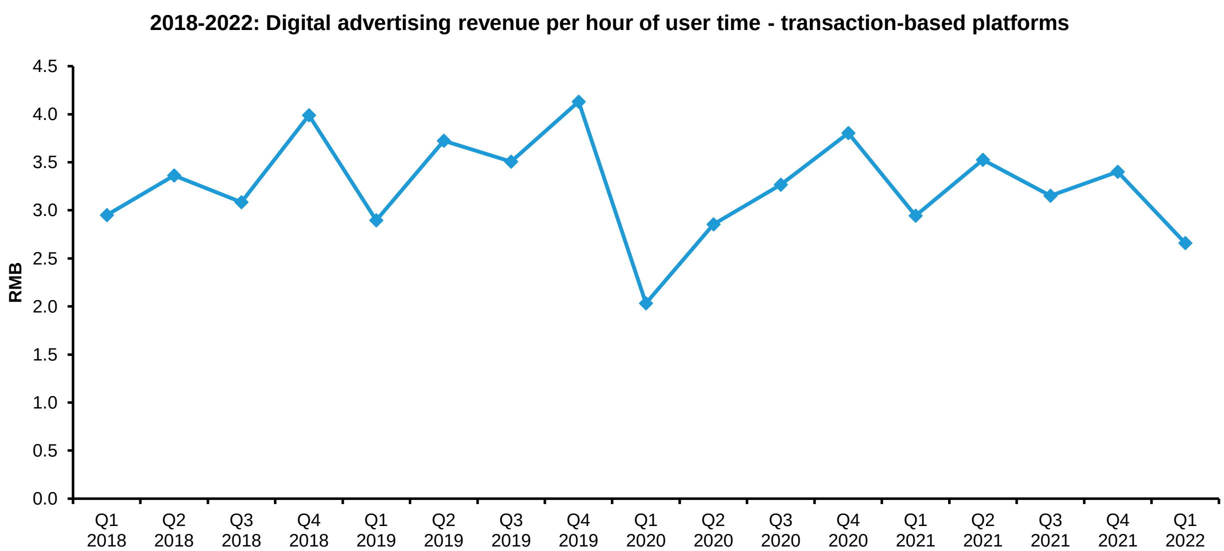
On the margin, with ad inventory increasing with the entrance of new short video platforms it wouldn't surprise us if industry eCPMs came under some pressure. Note Douyin's original breakthrough in 2018-2019 contributed to eCPM pressure for competitors like Tencent and Baidu.

EXHIBIT 28 : **Short video ads pricing in China surpassed that of other attention-based platforms in 2019...**



Source: Corporate reports and Bernstein analysis.

EXHIBIT 29 : **...but remain a long way short of unit monetisation levels within the e-commerce walled gardens**



Source: Corporate reports, QuestMobile, Bernstein estimates and analysis.

The experience in the U.S.

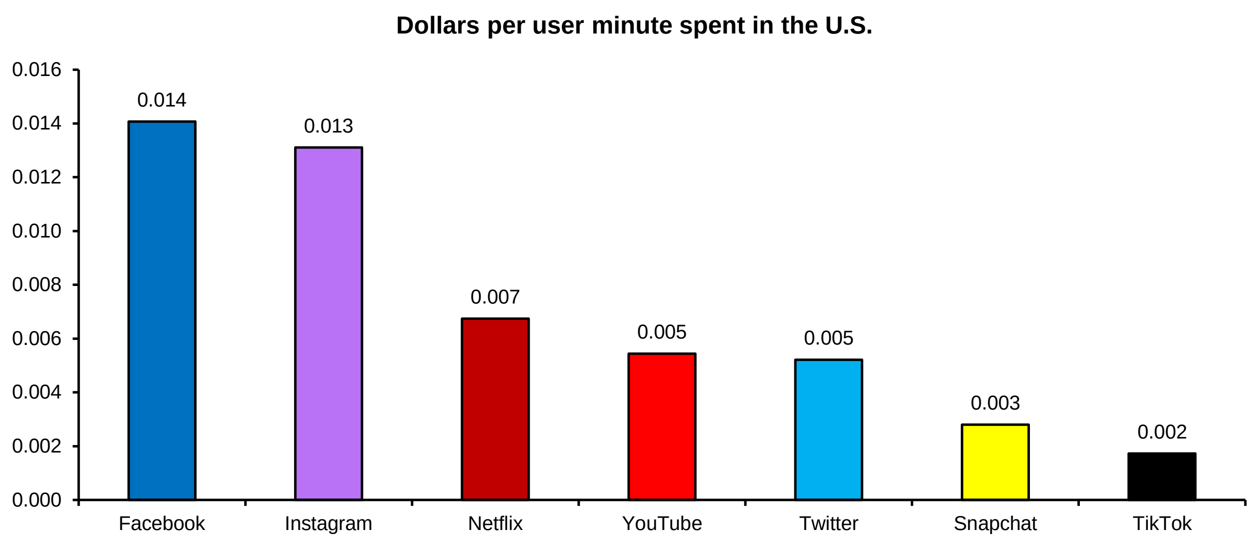
Short video monetization remains in early stages in the U.S., as the platforms have largely focused on herding engagement and improving the central experience so far. As engagement growth appears to be moderating though sticky, monetization (almost entirely through ads) becomes the central focus.

TikTok is already monetizing at a $6Bn+ revenue run-rate and Reels has just passed $1Bn+. Brand spend has played a major role in TikTok's growth, and we suspect much of ad spend on Reels skews mid-to-upper funnel. Digital video platforms like YouTube and of course linear television skews heavily towards brand spend given user behaviour associated with this format. Users have grown accustomed to scrolling past ads, rather than engaging and clicking, on in the case of linear TV it's a great time to go to the kitchen for snacks.

Moving from brand to direct response is obviously the dream, though certainly an uphill battle. Will users engage consistently with SFV ads, clicking out to download/purchase? If not, SFV may monetize at a lower rate per user time spent, as shown below. By our estimates, **YouTube monetizes at half the rate of Meta on a per-minute basis, and yet DR likely accounts for 30-40% of total revenues.** Is that a fair expectation for SFV platforms? Perhaps.

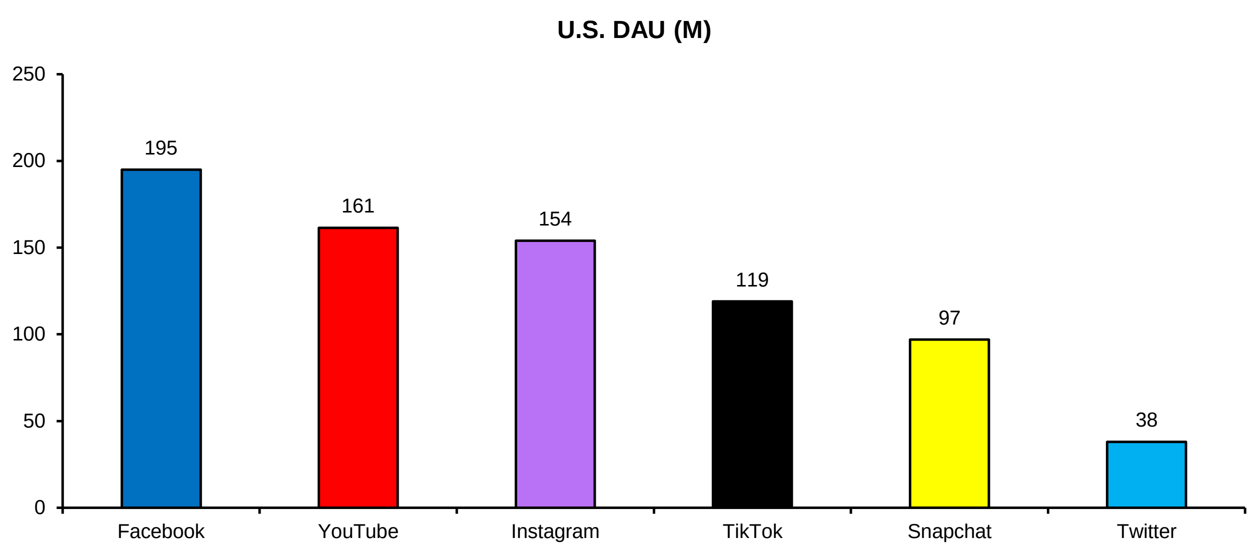
With seemingly every platform shifting more user attention towards SFV, the bear case points to a degradation in ad effectiveness resulting in fewer bottom-of-funnel campaigns and lower CPMs. A platform like Meta with a deeper social graph and vast first-party data could potentially outperform the SFV basket by at least offering more targeted ads more consistently, and for what it's worth, initial DR campaigns on both Meta and TikTok have seen promising pockets of success - but will it scale? Stay tuned.

EXHIBIT 30 : **Meta's apps generate more ad revenue for time spent compared to smaller and video-centric platforms**



Source: Company reports, CNBC, eMarketer, Bernstein estimates and analysis

EXHIBIT 31 : **TikTok has quickly grown their U.S. daily user count**



Source: Company reports, eMarketer, Bernstein estimates

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VALUATION METHODOLOGY

China Internet

We value our coverage stocks using a combination of methods, including (1) forward valuation multiples including PE, EV/sales, and P/GMV; (2) DCF; (3) sum-of-the-parts analyses; and (4) top-down estimates for medium-term market share and profitability. On a relative basis we also compare our coverage stocks with US and China internet peers on the basis of forward EV/sales multiples versus the sum of forward revenue growth and free cash flow margins.

U.S. Internet

We value companies in our coverage using a combination of DCF, and forward Enterprise Value to EBITDA and Price to EPS multiples.

RISKS

China Internet

The risks to our views on our China internet stocks and our price targets include (1) macroeconomic risks, including liquidity in the Chinese economy, and retail consumption trends; (2) changes in consumer preferences and engagement with specific brands and online platforms; (3) competition – both between other internet companies and offline peers; and (4) regulatory risk, for example related to China's anti-monopoly regulations. Tensions between the US and China could create political risks which may affect our coverage companies.

U.S. Internet

- Global macro conditions: our sector's revenues are primarily generated from advertising dollars and consumer spend. Any sustained decline in economic conditions, economic outlook, or burdens from a potential trade war can have a material negative impact on revenue growth potential across the sector. - Anti-trust regulations & litigation: Most of our sector is currently being investigated by the DOJ, FTC, or international regulatory bodies for anti-competitive, anti-trust behavior. Regulating big tech has become a bi-partisan initiative in the United States with reasonable expectations that some type of new regulation will prevail. Outsized risk remains if new regulations result in compounding cost of compliance, severely limiting revenue growth, and full or partial break-up of the companies all together. - Privacy regulations: Almost every company in our coverage sector is involved in on-going litigious lawsuits surrounding the capturing and usage of personal data. Any negative outcomes can set challenging precedents resulting in a materially different data collection and usage practices. Most exposed are ad supported businesses where data collection is the primary value contributor to providing desired ad targeting and attribution capabilities to advertisers. - Cyber attacks: similarly, almost all of our companies have recently experienced some type of cyber attack. Continued cyber attacks and/or a major attack can severely impact the trust and engagement of platform users, resulting in a significant impact to stock price. - Global competition: The Internet, more than any other industry, is susceptible to new and emerging competitive threats that seemingly disrupt entire ecosystems and value pools. With emerging fast-growing tech companies domestically and abroad, it stands the reason that new competitors will emerge that could reduce short-term revenue growth and destroy entire revenue pools long-term.

RATINGS DEFINITIONS, BENCHMARKS AND DISTRIBUTION

Bernstein brand

The Bernstein brand rates stocks based on forecasts of relative performance for the next 6-12 months versus the S&P 500 for stocks listed on the U.S. and Canadian exchanges, versus the MSCI Europe Index (MSDLE15) for stocks listed on the European exchanges (except for Russian companies), versus the MSCI Emerging Markets Index for Russian companies and stocks listed on emerging markets exchanges outside of the Asia Pacific region, versus the MSCI Japan (MXJP) for stocks listed on the Japanese exchanges, and versus the MSCI Asia Pacific ex-Japan Index for stocks listed on the Asian (ex-Japan) exchanges - unless otherwise specified.

The Bernstein brand has three categories of ratings:

- Outperform: Stock will outpace the market index by more than 15 pp
- Market-Perform: Stock will perform in line with the market index to within +/-15 pp
- Underperform: Stock will trail the performance of the market index by more than 15 pp

Not Rated: The stock Rating, Target Price and/or estimates (if any) have been suspended temporarily.

Autonomous brand

The Autonomous brand rates stocks as indicated below. As our benchmarks we use the SX7P and SXFP index for European banks, the SXIP for European insurers, the S&P 500 and S&P Financials for US banks coverage, S5LIFE for US Insurance, the SPSIINS for US Non-Life Insurers coverage, and IBOV for Brazil and H-FIN index for China banks and insurers. Ratings are stated relative to the sector (not the market).

The Autonomous brand has three categories of ratings:

- Outperform (OP): Stock will outpace the relevant index by more than 10 pp
- Neutral (N): Stock will perform in line with the market index to within +/-10 pp
- Underperform (UP): Stock will trail the performance of the relevant index by more than 10 pp
- Coverage Suspended (CS) applies when coverage of a company under the Autonomous research brand has been suspended. Ratings and price targets are suspended temporarily. Previously issued ratings and price targets are no longer current and should therefore not be relied upon.

Not Rated: The stock Rating, Target Price and/or estimates (if any) have been suspended temporarily.

Those denoted as 'Feature' (e.g., Feature Outperform FOP, Feature Under Outperform FUP) are our core ideas. Not Rated (NR) is applied to companies that are not under formal coverage.

For both brands, recommendations are based on a 12-month time horizon.

DISTRIBUTION OF RATINGS/INVESTMENT BANKING SERVICES

Rating	Market Abuse Regulation (MAR) and FINRA Rule 2241 classification	Count	Percent	Count*	Percent*
Outperform	BUY	394	50.38%	0	0.00%
Market-Perform (Bernstein Brand) Neutral (Autonomous Brand)	HOLD	262	33.50%	1	0.38%
Underperform	SELL	123	15.73%	0	0.00%
Not Rated (Bernstein Brand) Coverage Suspended (Autonomous Brand)	NOT RATED	3	0.38%	0	0.00%

* These figures represent the number and percentage of companies in each category to whom Bernstein and Autonomous provided investment banking services.
As of Aug 19 2022. All figures are updated quarterly and represent the cumulative ratings over the previous 12 months.

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Ronald Ma maintains a long position in Tencent Holdings Ltd and Alibaba Group Holding Ltd (700.HK, BABA and 9988.HK).
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