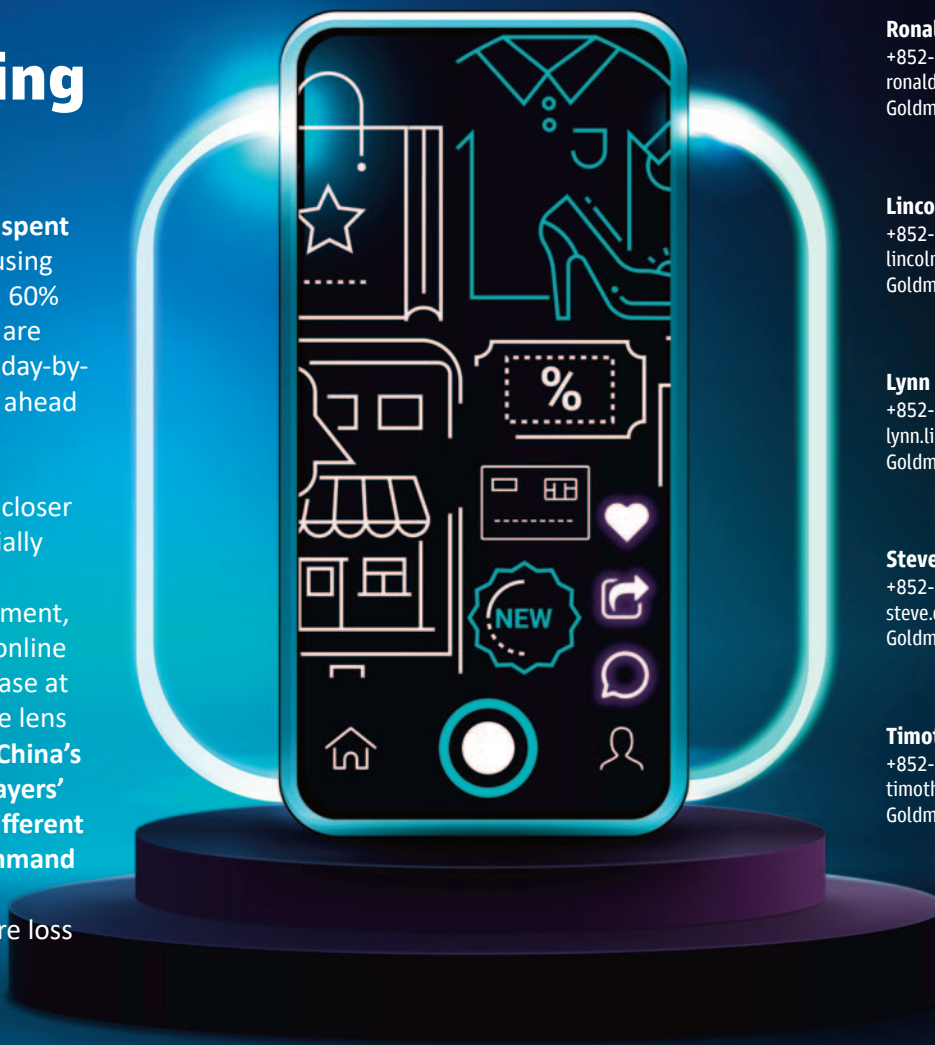


Short-form video-rization: Assessing the potential ceiling and lessons from China

Immersive short-form video (SFV) has become the largest single time spent format in the China internet space, with more than 1bn mobile users using Douyin, Kuaishou, and/or Tencent Video Accounts within WeChat, with 60% active on a daily basis, spending 120 min a day. We believe SFV players are becoming **funnel ecosystems** as they know their users more and more day-by-day, widening their advantage in providing relevant recommendations, ahead of other forms of entertainment/shopping apps.

Already the largest online advertising venues with time spent reaching closer to ceiling, **eCommerce is becoming the next focus for SFV players**, initially focusing on livestreaming (mostly impulsive) shopping and gradually expanding into all-purpose shelf-based shopping, local services, recruitment, real estate etc. We estimate livestreaming contributed to **15%** of total online retail share in 2021 (vs 3% in 2019). We introduce our bear/base/bull case at **21%/25%/30%** by 2025E, after assessing penetration potential from the lens of categories/ users/merchants/facilitators (eg KOLs). **Other swings to China's eCommerce landscape over the next few years will depend on SFV players' success expanding into shelf-based shopping. Here, we assess their different contribution scenarios, estimating SFV players could in aggregate command 16%/22%/33% of eCommerce GMV share by 2025E** (under our bear/base/bull scenarios), vs 12% in 2021, resulting in incremental share loss from traditional eCommerce players, primarily Alibaba and Vipshop.



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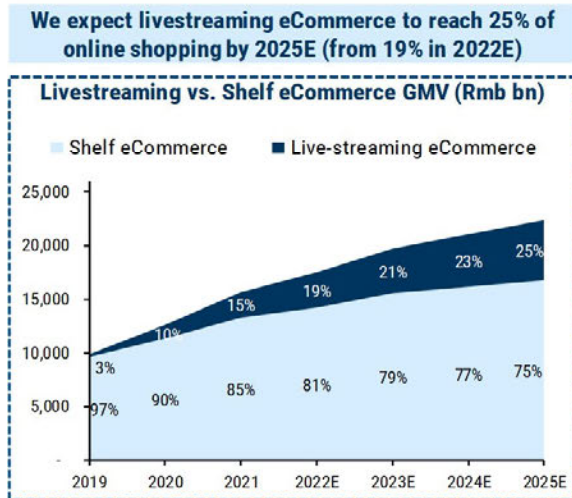
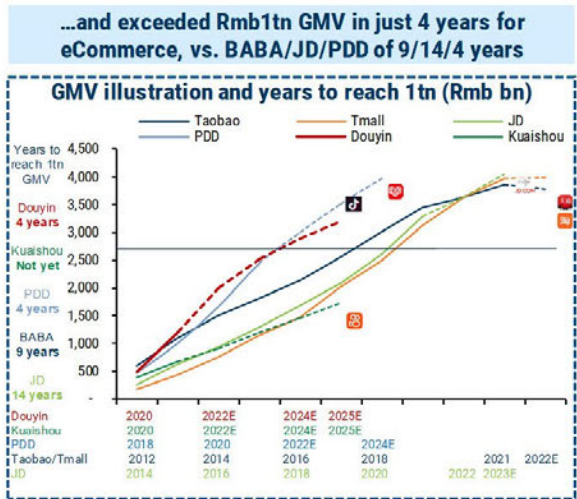
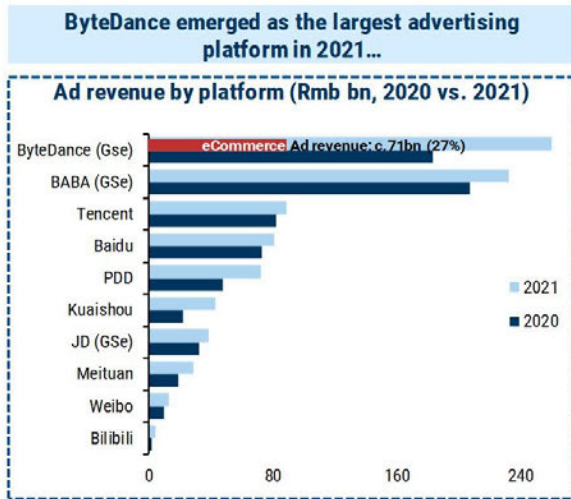
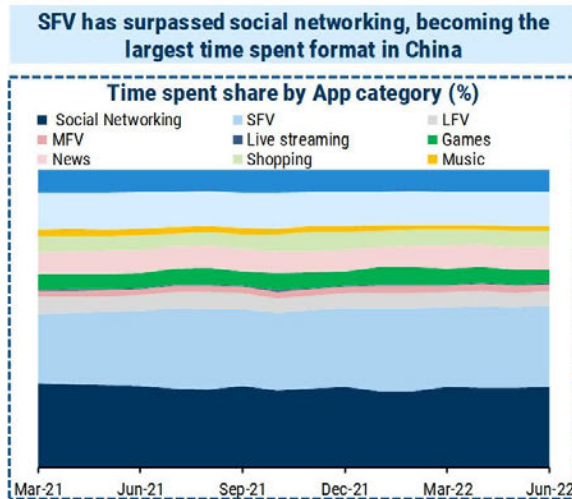
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The authors would like to thank David Ma and Victor Tang in our Internet team for their contributions to this report.

In six charts

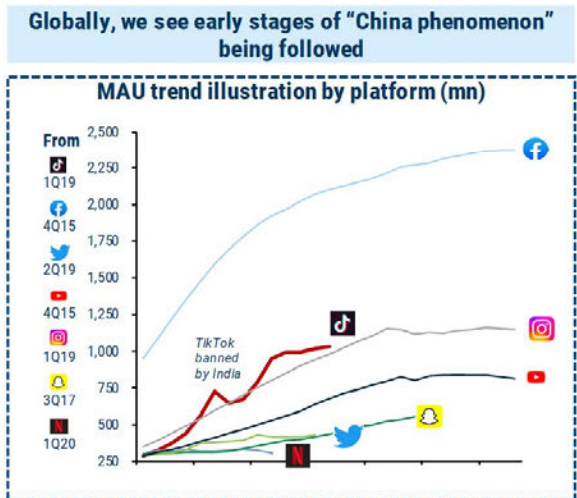
Exhibit 1: Our key thesis in six charts



...with Kuaisihou/Douyin together capturing 22% market share by 2025E (from 17% in 2022E)

Our forecast GMV CAGR over 2021-25E under bear/base/bull cases for proliferation of SFV from livestreaming shopping to all purpose shopping

	21-25E GMV CAGR	Base 2025 GMV (Rmb tn)	Bull 2025 GMV (Rmb tn)	Base for SFVs	Bull for SFVs	Consensus CAGR	Base 2025E GMV vs. Consensus
BABA		8,101	7,227	1%	-2%	5%	-15%
JD		4,820	4,827	10%	10%	16%	-19%
PDD		4,360	3,980	16%	13%	17%	-4%
Douyin		3,200	5,800	28%	48%	NA	NA
Kuaisihou		1,725	2,100	26%	33%	25%	4%



Note: We calculate Douyin/ByteDance's (Both Not Covered) relevant operating metrics (GMV, category mix etc.) by analyzing the industry and companies that we cover, and then extrapolating them to Douyin/ByteDance

Source: FT research, Goldman Sachs Global Investment Research, QuestMobile

Key numbers at a glance

Exhibit 2: Key numbers at a glance

Time-spent growth for the hypergrowth short-form video format is now normalizing, with ads revenues moderating as well



CAGR
2017-21 **+105%**
2021-25E **+12%**

Time spent CAGR moderating, we expect daily time spent on SFV per Internet user to reach 3 hrs by 2025E from 2 hrs in 2021



32% -> 37%

China online ads revenues share from short-form video platforms (with 2021-25E CAGR of 12%)

SFV players' next focus is on eCommerce (the largest internet vertical), with Rmb7tn of incremental industry GMV over 2021-25E



31% -> 36%

2021 -> 2025E implied China online retail goods penetration (on NBS definition)



9%

2021-25E industry online GMV CAGR

Our bear/base/bull cases for SFV platforms eCommerce disruption



5tn/6tn/7tn

Livestreaming GMV ceiling in China (Rmb tn) under our bear/base/bull cases



21%/25%/30%

Live-streaming GMV % total online by 2025E (vs. 19% for 2022E)



10%/14%/24%

2025E SFV platforms' GMV market share respectively in eCommerce in our bear/base/bull cases, whether their all-purpose shelf-based shopping initiatives play out



-2% to 2% CAGR

Our Alibaba 2021-25E GMV CAGR, depending on success of SFV platforms in eCommerce vs. V.A. consensus of +5%. With implied market share for Alibaba between 30%-38%, 36% base case by 2025E (vs. 45% today)



5%/8%/9%

Source: Company data, Goldman Sachs Global Investment Research

PM summary

Short-form video platforms (SFV) in China are becoming funnel ecosystems: Immersive SFV is already the largest single time-spent format in the China internet space, with more than 1 billion mobile users using short-form video apps, with 60% active on a daily basis, spending 120 minutes a day (per QuestMobile). At 31% of time spent by China internet users, the longest form of entertainment per day, yet with each video only an average of 30 seconds long, we believe this medium provides multiple cross-selling opportunities by adding livestreaming sessions in between the immersive SFV feeds. We see the SFV platforms becoming funnel ecosystems that increasingly know their users more day-by-day, widening their advantage in providing relevant recommendations, ahead of other forms of entertainment/shopping apps.

Already the largest advertising format in China, with time spent reaching close to the ceiling, we believe eCommerce is the next key driver of growth for SFV players, from livestreaming shopping (impulsive/unplanned shopping) to all-purpose shopping and other categories like local services, real estate, etc ahead.

- **Already China's largest advertising venue:** Douyin (Private), China's largest SFV platform with DAU/MAU double the size of the #2 player Kuaishou, alongside parent Bytedance's other ads businesses, surpassed Alibaba to become China's largest advertising platform in 2021. Expanding from brand advertising to performance-based ads and now completely closed-loop transactions for eCommerce in 2021, 30-40% of SFV platforms' advertising revenues are now attributed to eCommerce alone. We also expect Tencent's Video Accounts, #3 in time spent amongst SFV players, to continue to grow in time spent with its expanding content and expansion into eCommerce livestreaming, to catch up in terms of time spent, but still behind the #2 player, Kuaishou.
- **SFV players have proven their success in driving proliferation of livestreaming shopping:** We believe SFV platforms' success (excluding niche pure livestreaming platforms'/eCommerce players' own livestreaming channels) in driving proliferation of the livestreaming shopping format to 15% of total online retail GMV by 2021 (from 3% in 2019) has been largely driven by **(1)** SFV's large DAU (daily active user base) and long daily time spent, **(2)** the seamless closed-loop eCommerce transactions within the SFV platforms (without jumping to other apps thus improving conversion), **(3)** strengths in algorithms for shopping recommendations to a highly engaging user base that is open to the livestreaming format, after years of online shopping experience in China, and **(4)** availability of KOLs/long-tail of millions of live broadcasters in China, a mature online payment (completing purchases of impulsive shopping) and fulfillment infrastructure (which allows for worry-free returns after shopping).
- **Our bear/base/bull case (see Exhibit 7) suggests the livestreaming format** as a % of total online retail GMV to reach **21%/25%/30% by 2025E**, implying GMV of Rmb5tn/6tn/7tn for livestreaming shopping by 2025E, from c. Rmb3tn or 19% of online GMV for 2022E (GSe), following our detailed analysis by platform/by category of online and livestreaming penetration ceilings from the lens of categories, users, merchants and facilitators, e.g. KOLs/MCNs.

SFV players now expanding into all-purpose shelf based-shopping, and into local services. We introduce our scenario analysis for livestreaming penetration, including an assessment of SFV players' shelf-based eCommerce potential. Douyin upgraded its eCommerce strategy to universal interest eCommerce (“全域兴趣电商” in Chinese) in May 2022, a year after introducing interest eCommerce in Apr 2021. Kuaishou also launched a beta test on shelf eCommerce in August 2022. We set out our base case scenario where non-livestreaming shopping could account for 10%/25% of Kuaishou/Douyin's GMV by 2025E, vs. our bear case assuming only 5%/13% flat contribution (similar to now) and a bull case of 15%/40% with larger disruption to incumbent traditional eCommerce players. We see the SFV players' ambitions of expanding further into local services, with Douyin expanding into local services and Kuaishou into jobs/recruitment.

Key investor questions and concerns

1. To what extent will short-form video platforms disrupt the traditional eCommerce players?

- **By category**, apparel, cosmetics, food & beverages are typically the top three categories for livestream eCommerce, due to lower ticket size, and livestreaming can better illustrate/showcase products and creates better interaction with consumers. Amongst which, we believe apparel can contribute at c.40% of total GMV by 2025E. We are expecting a more diversified category pattern on livestreaming platforms going forward, with **(1)** mature categories like cosmetics, jewelry, apparel continuing to grow, as the immersive experience increasingly grabs the attention of consumers, and **(2)** SFV players achieving certain growth for emerging categories like electronics & appliances, with additional infrastructure development. We also introduce several potential scenarios for our bear/bull case analysis, see [Exhibit 7](#).
- **By channel**: We introduce our scenario analysis for SFV players' **shelf-based eCommerce potential**, with Douyin upgrading its eCommerce strategy to universal interest eCommerce (“全域兴趣电商” in Chinese) in May 2022, a year after introducing interest eCommerce in Apr 2021, and Kuaishou starting its Beta test of Mall entrance within the APP in Aug 2022. **Base case**: We expect decent progress from the SFV launching mall that helps facilitate repurchases and planned shopping, with Douyin/Kuaishou shelf-based eCommerce reaching 25%/10% of their respective total GMVs.

2. Changes to eCommerce competitive landscape by 2025E? Is it a zero-sum game or is livestreaming eCommerce pushing the boundaries of the retailing online penetration?

- The competition on **time spent** between Douyin, Kuaishou and Tencent remains intense, and we expect the **competitive landscape to remain intense** with Douyin/Kuaishou/Tencent Video Account taking **50%/30%/20%** of timespent share by 2025E.
- On Tencent Video Account, we see it is achieving critical mass with time spent equivalent to 80% of WeChat Moments' level, with c.500mn DAU (vs. >600mn/>300mn for Douyin/Kuaishou) and c.30min viewing per DAU per day (vs.120min for Douyin/Kuaishou), while still at early stage of monetization in terms of advertising and eCommerce.
- **On GMV share**, we expect Tencent Video to grow and capture Rmb800bn in online sales in the livestreaming format by 2025E, accounting for c.15% share of the total of the three players combined. We expect decent progress from the SFV launching mall that helps facilitate repurchases and planned shopping, and with Douyin/Kuaishou shelf-based eCommerce reaching 25%/10% of their respective total GMVs, together the two SFV players accounting for 22% GMV share vs. BABA's 36% of industry online GMV in 2025E.

3. Lessons for the rest of the world: Still early days, but remains top of mind as the next important trend/disruption to watch out for.

- Learning from the playbook in China, after gaining significant engagement and internet users time spent, different markets in the world are at different user mindshare in terms of online shopping/culture of shopping via. Livestreaming/ income levels on price sensitivity and the required infrastructure/facilitators (e.g. KOLs)/online payment/logistics to drive higher penetration of livestreaming as a format for shopping.
- **US (covered by Eric Sheridan):** The disintermediation of long-form video & traditional social media engagement via/by SFV and the rise of TikTok as a competitive threat to user engagement & advertising budgets remain key investor debates. According to data from SensorTower, TikTok's user base and total time spent has grown significantly since January 2020 and has maintained elevated levels in 2022 YTD.
- **South East Asia (covered by Pang Vittayaamnuykoon):** Other than the underdeveloped live commerce ecosystem itself (e.g. lack of trained influencers/KOLs), our checks indicate that another key issue that TikTok (the key disruptor to other content platforms in the local market) is facing in growing its new ecommerce arm relates to the high % of unpaid/incomplete orders. We believe this is partly attributable to the large 24-hr time gap given to complete payment after placing an order. Based on the experience in China, we believe live commerce could have a promising future in Indonesia, considering TikTok's large viewer base there, although our channel checks indicate that TikTok Shop currently remains in the early stage. We will continue to monitor for further updates in the livestream eCommerce space.

Key risks to our sector view

- Faster-/slower-than-expected retail sales growth in China.
- Slower-than-expected online/livestreaming penetration once Covid normalizes and people resume daily offline activities with no control measures.
- Emergence of other disruptive shopping formats, such as VR (Virtual Reality)/AR (Augmented Reality) shopping.

Exhibit 3: SFV vs. traditional eCommerce: From the lens of shoppers

SFVs have higher user base, time spent, and engagement, and are currently less monetized with lower order frequency and ticket size

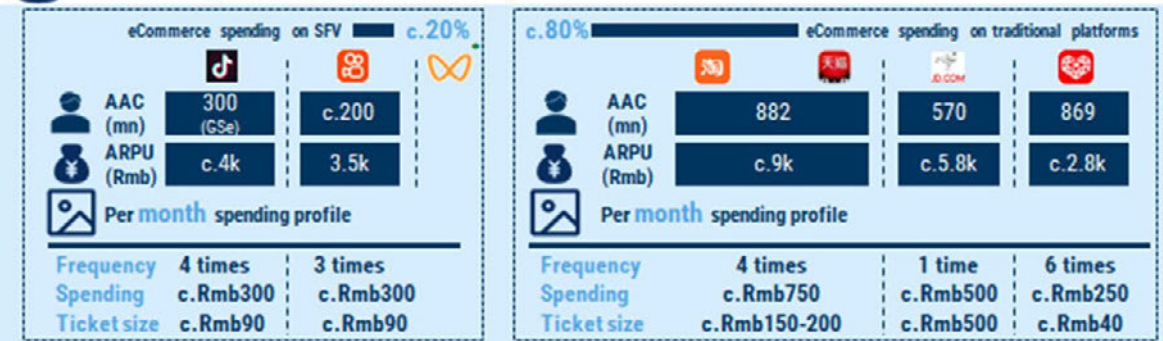
A typical day with Short-form Video (SFV) vs. eCommerce platforms for an individual...



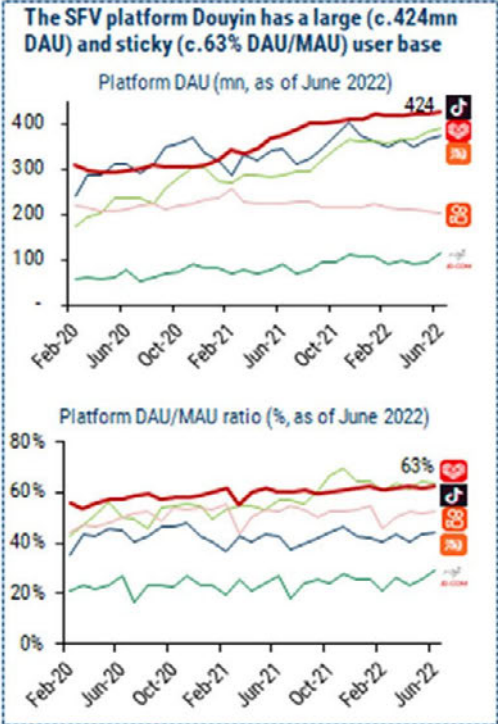
From the lens of time spent, an average user spends more time on SFVs and opens Apps more frequently vs. eCommerce platforms, encountering limited eCommerce-related livestreaming content



From the lens of dollar spent, SFVs command a lower wallet share with lower order frequency and ticket sizes vs. eCommerce platforms (data as of June 2022)



... and what we see at an aggregate level



Key Questions:

Landscape: How SFV players disrupt traditional eCommerce platforms?

Penetration: How large can livestreaming be as a format?

Wider implications: How is it progressing among global peers and what are the uncertainties?

1) We calculate Douyin/Bytedance's (both Not Covered) relevant operating metrics (GMV, category mix etc.) by analyzing the industry and companies that we cover, and then extrapolating them to Douyin/Bytedance 2) * Tencent's livestreaming eCommerce development still in early stage hence data not available

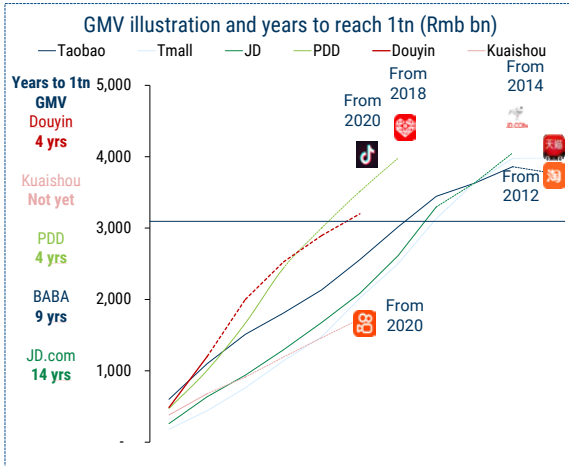
Source: Quest Mobile (as of June 2022), Goldman Sachs Global Investment Research

Exhibit 4: How will SFV players disrupt eCommerce incumbents?

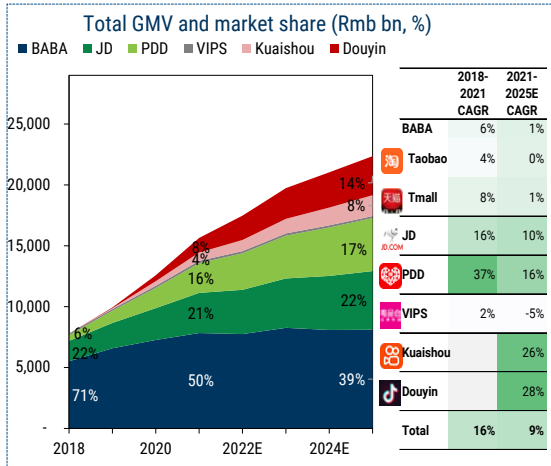
Douyin's eCommerce GMV had a quick ramp-up, focusing more on apparel and cosmetics with higher user experience

Implication on Competitive Landscape: Douyin's livestreaming eCommerce has already been a disruptor; SFV players to gain market share

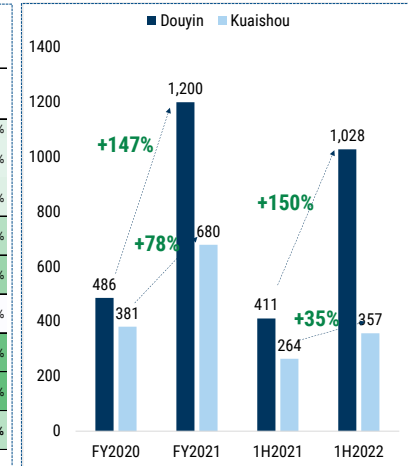
Douyin's GMV exceeded Rmb 1tn in 4 years, vs. BABA/JD/PDD of 9/14/4 years



... and we expect Kuaishou & Douyin together to capture c.22% market share by 2025E with high growth



Douyin has already outgrown Kuaishou by a wide margin at a larger scale (as of June 2022)

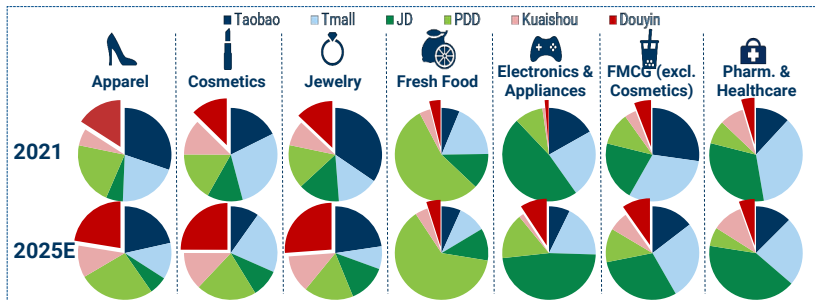


Implication on Category Penetration: We also observed difference in penetration and landscape of SFV players by different categories

Categories are quite different in terms of user engagement/experience level, margin profile, ASP, and return rate; penetration difficulty varies across categories

	User experience	Gross margin	ASP	Return rate
Apparel	High	50%+	Relatively low	High
Cosmetics	High	50%+	Relatively low	Relatively low
Fresh food	Medium	15%+	Low	Relatively low
Electronics & Appliances	Relatively high	20%+	Relatively high	Relatively high
Book & videos	Relatively low	20%+	Relatively low	Relatively high
Others - Automobile	Relatively low	15%+	High	Relatively low
Others - Home decors	Relatively low	30%+	High	Relatively low
Others - Local services	Low	10%+	Medium	Medium

Compared with 2021, we expect Kuaishou & Douyin to gain significant share and volume by 2025, esp. in Apparel, Cosmetics, Pharma and Jewelry



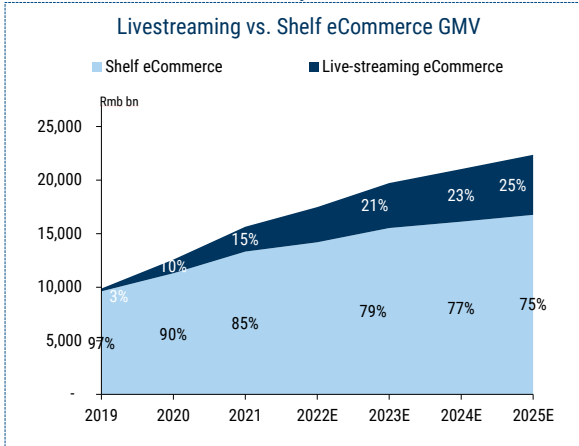
Note: We calculate Douyin/Bytedance's (both Not Covered) relevant operating metrics (GMV, category mix etc.) by analyzing the industry and companies that we cover, and then extrapolating them to Douyin/Bytedance

Source: Feigua, Sandalwood Advisors, BurningData, Quest Mobile, Goldman Sachs Global Investment Research

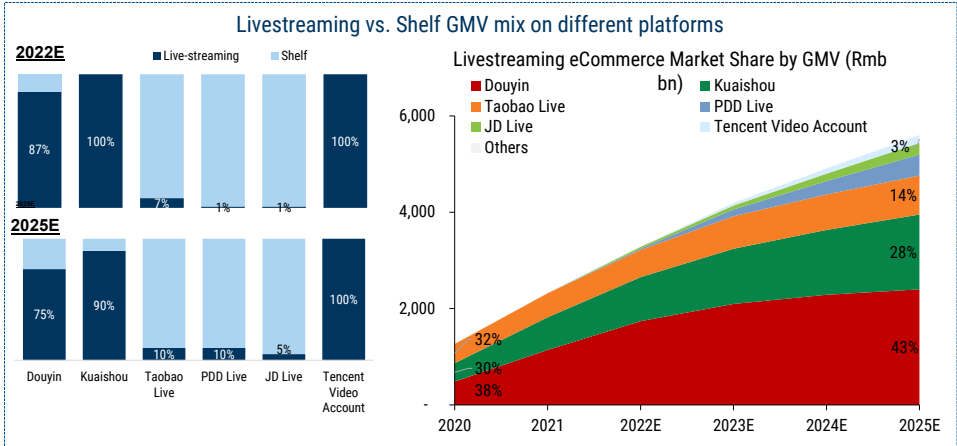
Exhibit 5: We see limited hurdle for SFV platforms to expand into shelf eCommerce, to provide a within-app shopping mall experience for customers

By platform, we expect to see livestreaming & shelf eCommerce entering each others' space and offering a more comprehensive shopping experience

Starting from only 3%, we expect livestreaming to penetrate into c.25% of total online GMV by 2025E

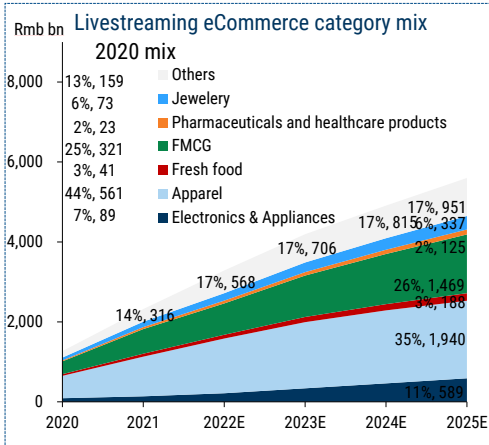


... with different mixes across platforms; and we expect the landscape to evolve accordingly

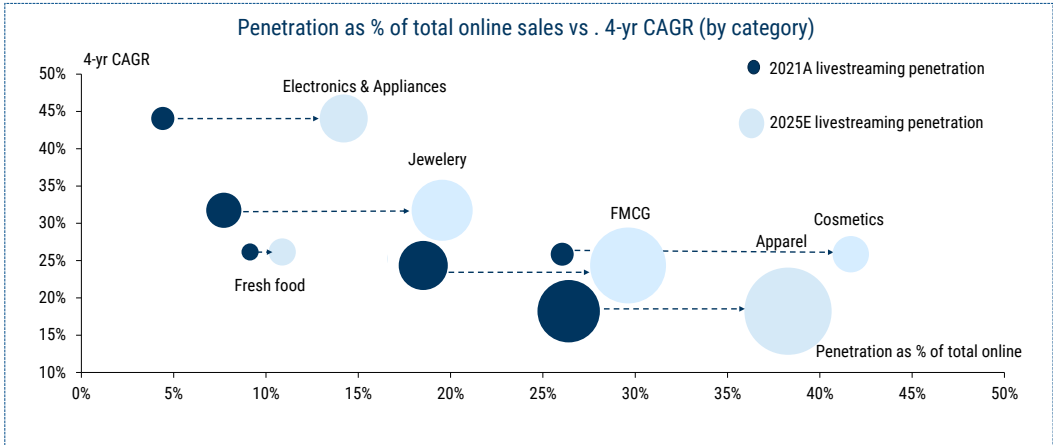


By category, apparel still wins with the highest penetration and the largest contribution

We expect apparel to account for c.35% of livestreaming GMV, still the largest category



We expect Electronics & Appliances to see high growth (4yr CAGR c.44%) and penetration increase (from c.4% to c.13%)



We calculate Douyin/Bytedance's (both Not Covered) relevant operating metrics (GMV, category mix etc.) by analyzing the industry and companies that we cover, and then extrapolating them to Douyin/Bytedance

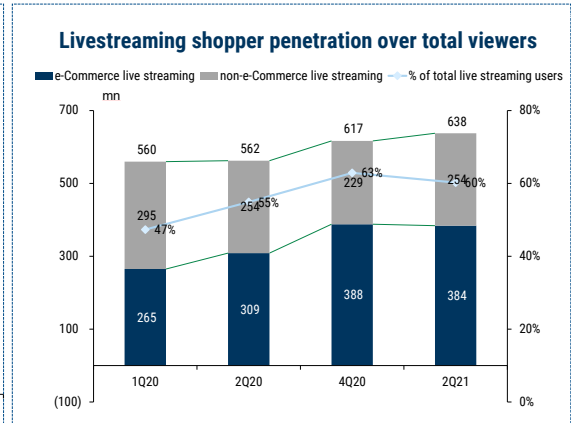
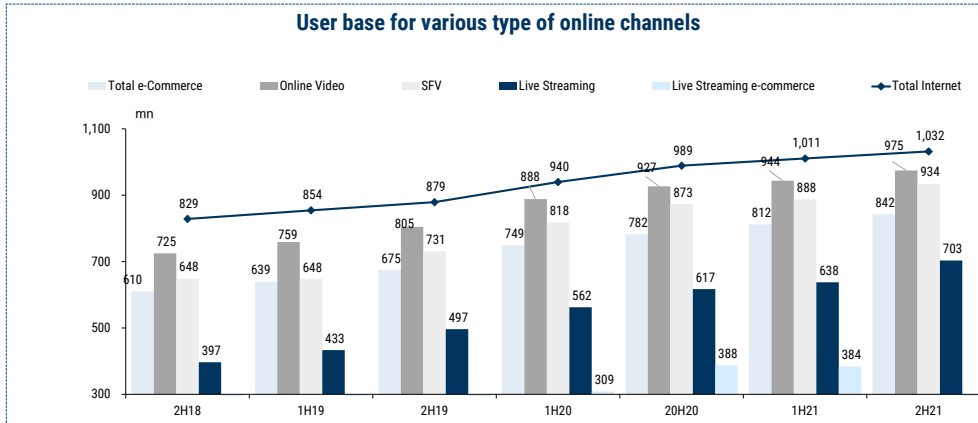
Source: Feigua, Sandalwood Advisors, BurningData, Goldman Sachs Global Investment Research

Exhibit 6: SFV has well penetrated into the China Internet users and is well suited for eCommerce

SFV has well penetrated into China Internet users

A quick glance at the China Internet tells us that China Internet users have already surpassed 1bn, with SFV and livestreaming winning users

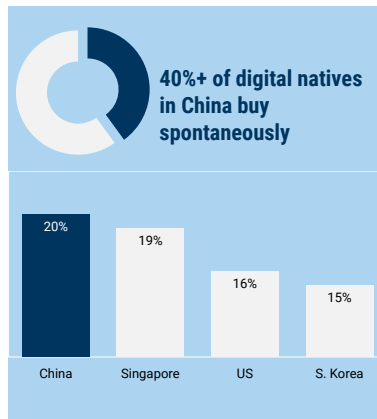
... and livestreaming eCom reached c.60% of total viewers



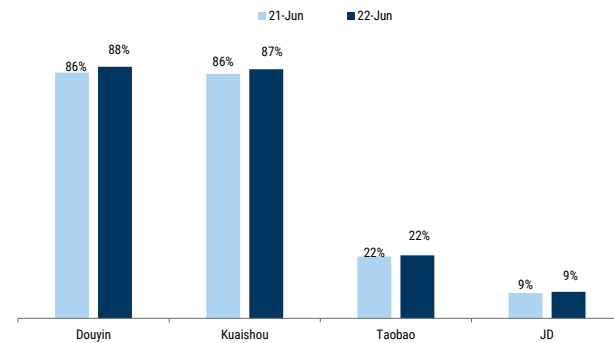
20% of Chinese consumers are "impulsive spenders", naturally fit in incentive shopping scenarios like livestreaming & SFV

40%+ of digital natives buy products spontaneously on the go, higher than Australia, Japan, or South Korea; 50% of consumer loans are younger than 30, according to *McKinsey Global Institute analysis*

According to Euromonitor, 20% of Chinese consumers consider themselves as "Impulsive spender", higher than South Korea (15%), United States (16%), and Singapore (19%). *Euromonitor consumer lifestyle survey, 2022*



Percentage of Livestream Viewers in SFV Platforms and E-commerce Platforms Total Users



Source: Quest Mobile (as of June 2022), CNNIC (as of Dec 2021), Compiled by Goldman Sachs Global Investment Research

Exhibit 7: Our bull, bear and base case for SFV platforms and traditional eCommerce players in China

	Bear case for SFV platforms in eCommerce, i.e. bull-case for traditional eCommerce players	Base case for SFV platforms in eCommerce	Bull case for SFV platforms in eCommerce, and bear-case for traditional eCommerce players
Total online retail goods GMV by 2025E (Rmb tn)	from Rmb16tn (2021) → Rmb22tn	from Rmb16tn (2021) → Rmb22tn	from Rmb16tn (2021) → Rmb24tn
	21-25E CAGR 9%	21-25E CAGR 9%	21-25E CAGR 11%
Alibaba 2025E GMV (Rmb tn)	Rmb8.5tn	Rmb8.1tn	Rmb7.2tn
Short-form video apps 2025E GMV (Rmb tn)	Rmb3.5tn	Rmb4.9tn	Rmb7.9tn
SFV platforms market share % of online sales	from 15% (2021) → 16%	from 15% (2021) → 22%	from 15% (2021) → 33%
Douyin 2025E GMV (Rmb tn)	Rmb2.3tn	Rmb3.2tn	Rmb5.8tn
Kuaishou 2025E GMV (Rmb tn)	Rmb1.2tn	Rmb1.7tn	Rmb2.1tn
Live-streaming size (Douyin + Kuaishou + Video Account + Traditional eCommerce platform - Tencent's sales sourced from other platforms, 2025E, Rmb tn)	Rmb5tn	Rmb6tn	Rmb7tn
Assumptions	We expect some short-term declines in few categories over 2023 when China re-opens, then flattening out from 2024	We expect some further penetration in key categories	We expect further penetration in all categories
Live-streaming GMV % total online by 2025E vs. 2022E of 19%	from 15% (2021) → 21%	from 15% (2021) → 25%	from 15% (2021) → 30%
2025E Live-streaming GMV breakdown (Rmb tn)			
2025E SFV platforms' shelf eCommerce market (Rmb tn)	Rmb0.4tn	Rmb1.0tn	Rmb2.6tn
Douyin & Kuaishou blended shelf eCommerce contribution (%)	10%	20%	33%
2025E SFV platforms' shelf eCommerce share % as of online sales	2% vs. BABA 2025E market share of 38%	4% vs. BABA 2025E market share of 36%	11% vs. BABA 2025E market share of 30%
2025E Douyin's shelf-based eCommerce as % of Douyin GMV	13% broadly flat from 2022E levels	25%	40%
Douyin GMV breakdown (2025E, Rmb tn)			
2025E Kuaishou's shelf-based eCommerce as % of Kuaishou GMV	5%	10%	15%

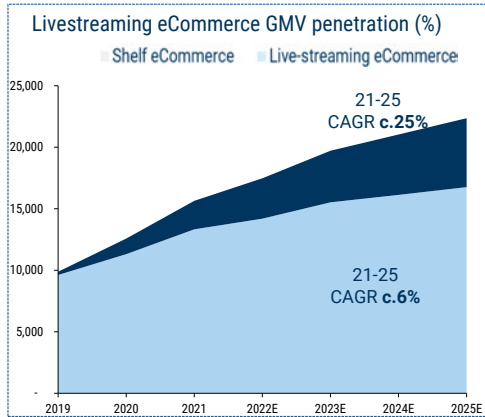
We calculate Douyin/Bytedance's (both Not Covered) relevant operating metrics (GMV, category mix etc.) by analyzing the industry and companies that we cover, and then extrapolating them to Douyin/Bytedance

Source: Goldman Sachs Global Investment Research, Company data

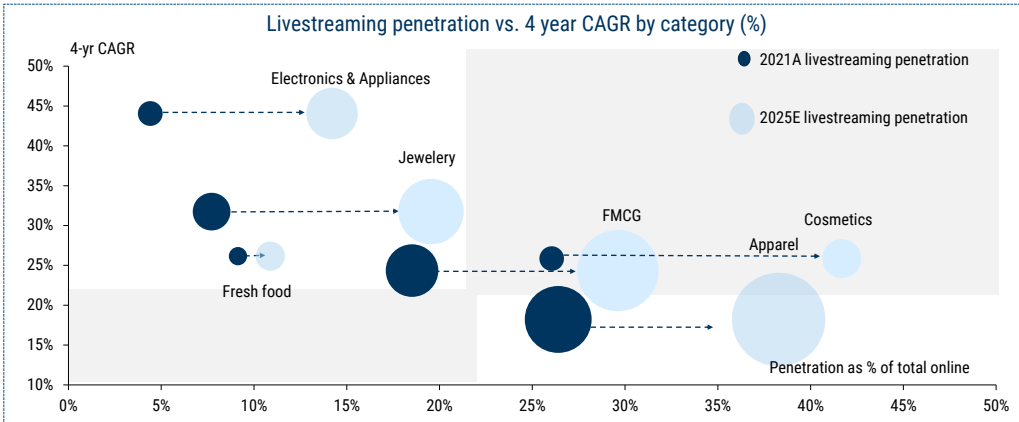
Exhibit 8: Where is the potential ceiling and what are the challenges?

Implication on Category Penetration: We expect overall penetration in livestreaming eCommerce to reach 25%+; Apparel remaining the largest

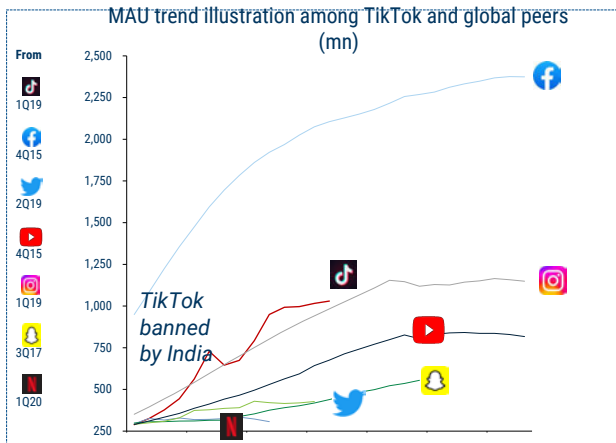
We expect livestreaming eCommerce to reach c.25%+ of online shopping by 2025E



... and Apparel to remain the largest contributor in livestreaming eCommerce (34%) with increasing livestreaming penetration over total online shopping (27% to 38% at 9% CAGR)



Implication on Global Peers: To follow "China phenomenon", but with regulatory uncertainties



India	Jun 2020: TikTok, together with other 58 Chinese Apps, banned by the Indian government
U.S.	Aug 2020: The U.S. banned transactions with ByteDance
U.S.	Aug 2020: The U.S. urged TikTok to be sold to U.S. buyers
U.S.	Nov 2020: Executive Orders from former president Donald Trump to sell to U.S. buyers were suspended
India	Jan 2021: India's ban on Chinese Apps became permanent
U.S.	Jun 2021: Previous orders were revoked and replaced with one that calls for a broader review of foreign-controlled Apps
Ireland	Sept 2021: Ireland investigated into TikTok on children's data handling and personal data transfer

Source: SensorTower (as of June 2022), Ireland Data Protection Commission, Bloomberg, Company website, Goldman Sachs Global Investment Research

Exhibit 9: How do the China & US Internet giants think about interest/livestreaming eCommerce?

Yong Zhang, CEO at Alibaba Group thinks that livestreaming certainly has become a **very important part of the digital commerce ecosystem**, enriching the user experience and marketing. Taobao livestreaming ecosystem is a complementary part of a larger offering, it's certainly not the only means of getting there. And society do need a multifaceted and rich matrix of services through which to reach users and market products.

Chi Ping Lau, President and Executive Director at Tencent Holdings commented on Tencent's progress on livestreaming eCommerce that for livestreaming, Tencent is ramping up their tipping revenue, which is already becoming **quite sizable**, but will pass most of the benefits to content creators. Tencent is growing livestreaming e-commerce GMV as well.

Wenwen Wei, President at Douyin eCommerce commented on Douyin's strategy on eCommerce that Douyin will achieve synergy across various scenarios, including short-form videos, livestreaming, mall, and search to bring merchants new growth.

Yixiao Cheng, Co-founder, Executive Director, and CEO at Kuaishou Technology discussed that Monetization methods are diverse and constantly evolving. In addition to the traditional virtual gift, businesses such as e-commerce and recruitment are all grafted on the livestreaming. So they are also paying more attention to the exploration of **industrialization of the livestreaming ecosystem**.

Wayne Purboo, Vice President of Advertising at Amazon believes that livestreaming shopping is **the future of retail**.

Mark Zuckerberg, CEO of Meta thinks the nerve center for a lot of **innovation around commerce** is coming out of Asia, particularly South East Asia. Meta thinks live shopping, conversational commerce, all these innovations are being led and inspired out of Asia Pacific.

William White, Chief Marketing Officer at Walmart U.S. commented that Walmart has been focused on charting new territory in **shoppable livestreams** and look forward to continuing to bring engaging experiences to their customers that allow them to shop seamlessly while also being entertained.

Susan Wojcicki, CEO of YouTube shares that people come to YouTube every day to make decisions about what to buy, and 87% of viewers say that when they're shopping or browsing on YouTube, they feel like they can make a faster decision about what to purchase because of all the information that they have in videos.

Source: Company data, Compiled by Goldman Sachs Global Investment Research

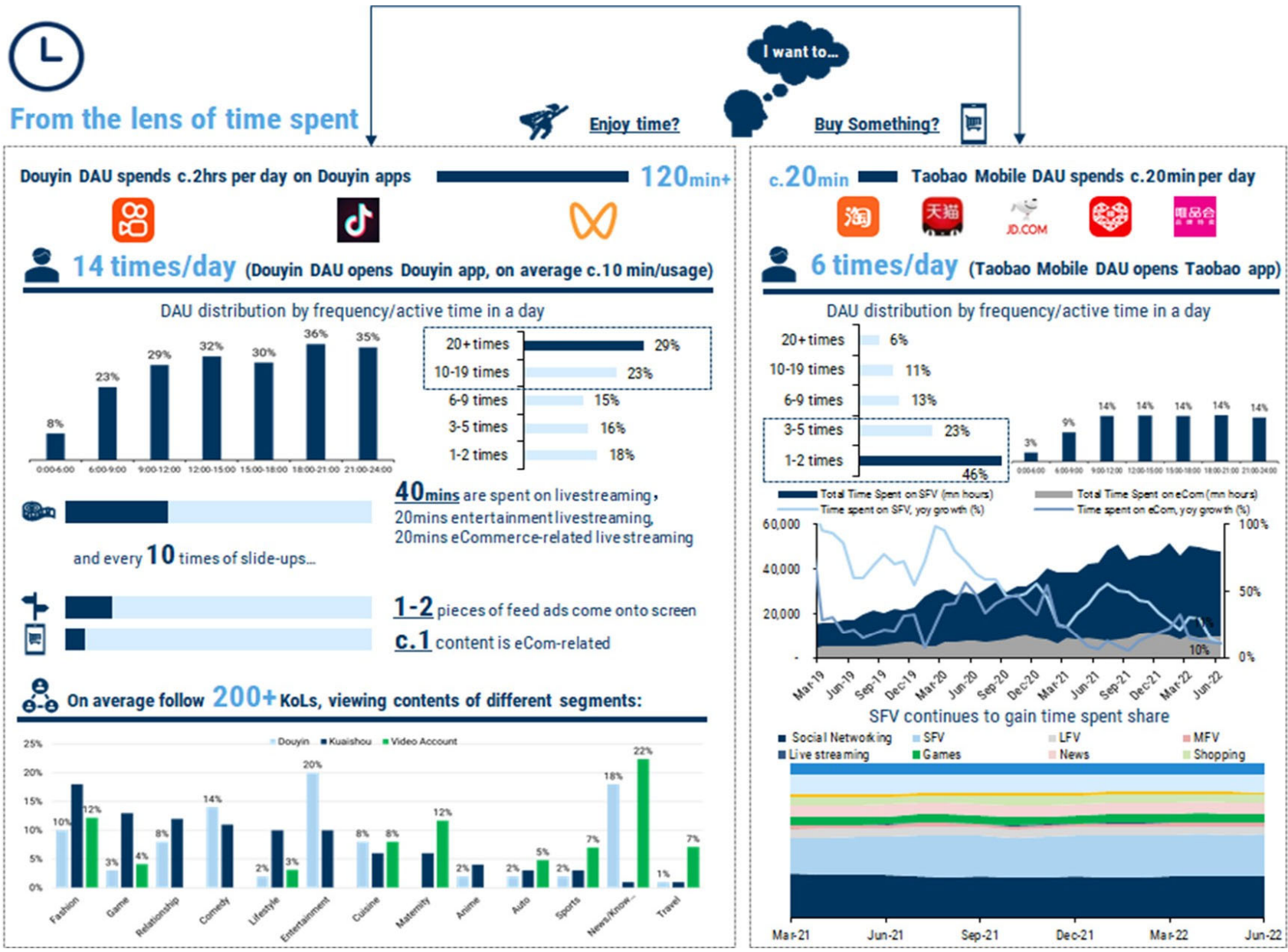
Short form video: Already the largest time spent format in China

A funnel ecosystem that knows its users more and more day-by-day

On average, a daily active user of SFV platform would spend 120min or 2 hours on the app (vs. average daily online timespent of 6 hours per Internet user), opening it 14 times in the day, and 1/3 of the time spent on livestreaming, amongst which half on entertainment, half on eCommerce (based on Douyin app data given this is the #1 player in the SFV platform). For a traditional eCommerce user (we take Taobao mobile as a good representative as it is the biggest eCommerce platform in terms of GMV, the average timespent per DAU is only 20min, 1/6 of SFV platform, while we note that the total spending on Taobao per AAC is c.4x of a Douyin eCommerce shopper, where we see further room for SFV to develop its eCommerce business. We summarize key user cohorts in below charts, where:

- **Livestreaming user base** has reached c.700mn in 2021 according to CNNIC, vs. c.900mn SFV users. 60% of livestreaming viewers have watched eCommerce related livestreaming content. SFV platforms are trying to expand the user base through (1) launching Lite version of the SFV apps to further penetrate into lower tier cities (2) introducing and encouraging more knowledgeable/useful content to attract users with higher education background.
- **Impulsive shoppers:** we note that livestreaming can create immersive environment to stimulate more impulsive shopping. According to one survey from Euromonitor, 20% of Chinese consumers consider themselves as “Impulsive spender”, higher than South Korea (15%), United States (16%), and Singapore (19%). In an interview with PDD Founder Mr. Huang Zheng, he shared that the distribution of unplanned/impulsive consumption is likely to be “3456” - 60%/50%/40% / 30% of total consumption are impulsive in first-/ second-/third-/fourth-tier cities.
- **Livestreaming + SFV are complementary:** livestreaming is better for instant conversion, while SFV is better for longer promotion and better repurchase in our view. In 2021, we note that for the top 3 categories on SFV platforms, c.5%/10%/1% of sales for Apparel/Cosmetics/Jewelry are sold through short-form videos, per our estimate.
- **User cohort: By gender**, 56% of SFV viewers are female as of Feb 2022. On Douyin, 65% female viewers contribute 73% purchases as of Dec 2021. **By city tier**, tier 1 and new tier 1 contribute 20% of SFV livestreaming viewers as of Feb 2022, tier 2 & 3 cities contribute 40%+ viewers. **By age**, 50%+ buyers on livestreaming platforms are between 21 to 30; and top picks for the young include Electronics & Appliances, FMCG, Cosmetics, etc.

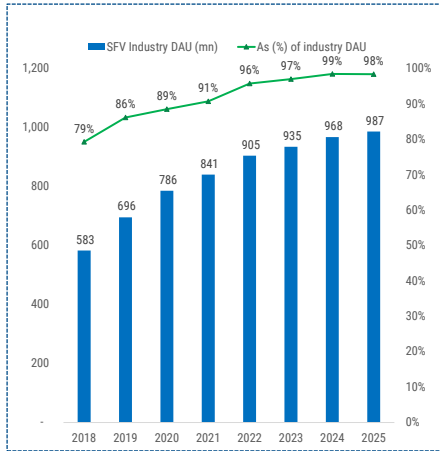
Exhibit 12: SFV vs. traditional eCommerce from the lens of time spent (as of 2021)



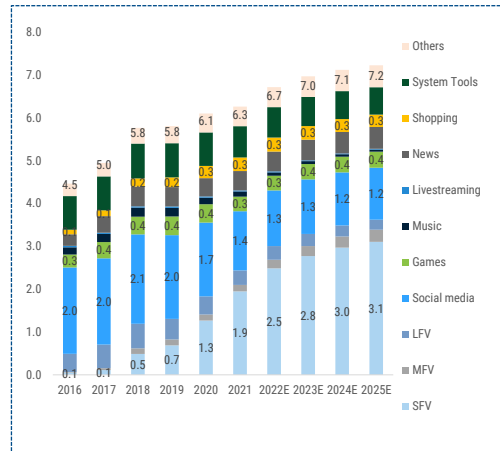
Source: Compiled by Goldman Sachs Global Investment Research, Quest Mobile

Exhibit 13: SFV industry snapshot - high DAU, timespent market share gains

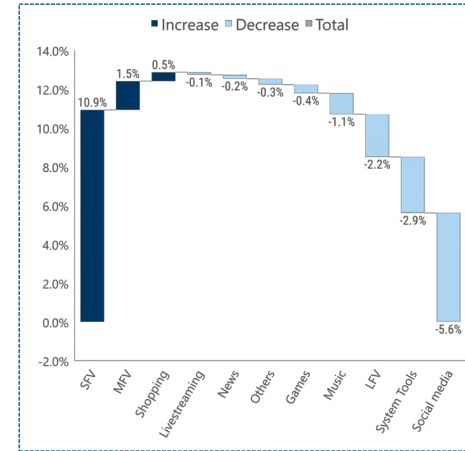
We expect short-form video penetration within China Internet users to further improve, from 91% in 2021 to 98% in 2025...



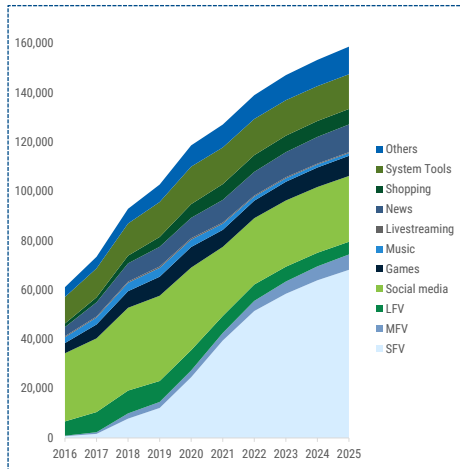
...From a time spent/DAU (hours) perspective, we expect China internet users to spend 7.2 hours per day in 2025E, with the increment coming from SFV



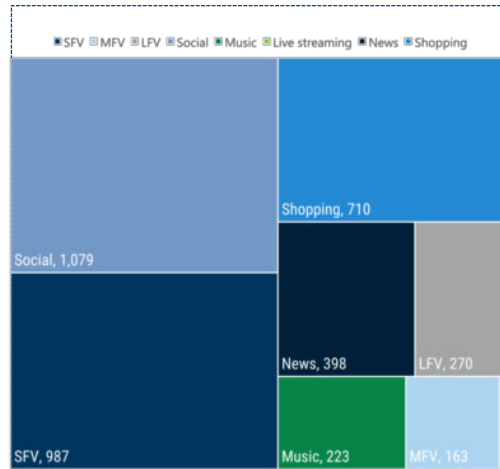
...We expect continued timespent % market share to move towards the SFV format, away from social media/LFV/music/games in 2025E



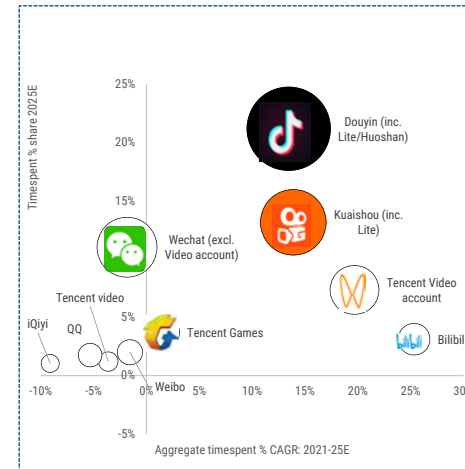
From an absolute engagement perspective (bn mins), SFV to remain the largest format in 2025E, a trend since 2020



SFV to remain as the 2nd most penetrated verticals on DAU (mn) in 2025E, similar to 2021



We expect the SFV players and Bilibili to remain as the strongest timespent % growers in 2021-25E

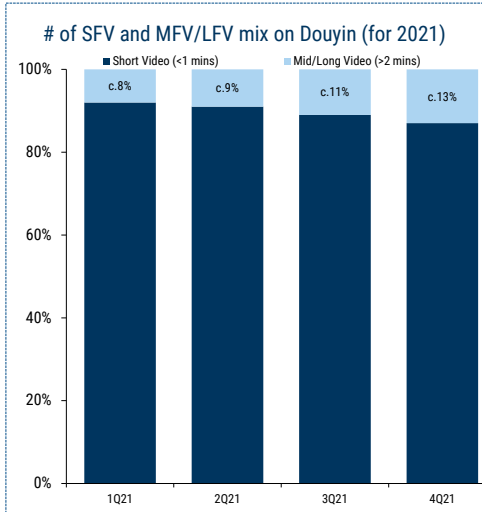


We calculate Douyin/Bytedance's (both Not Covered) relevant operating metrics (GMV, category mix etc.) by analyzing the industry and companies that we cover, and then extrapolating them to Douyin/Bytedance

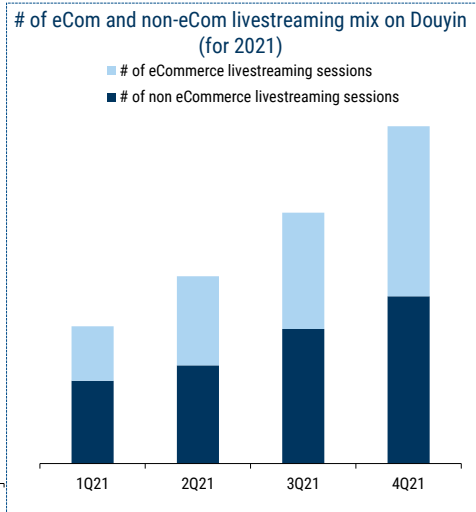
Source: Company data, Questmobile, Goldman Sachs Global Investment Research

Exhibit 14: From the lens of merchants: Ecosystem of short form video feed recommendation + livestreaming eCommerce + within-app mall: Short video content has a longer dissemination cycle and is suitable for product promotion Live broadcast with goods emphasizes real-time sales conversion

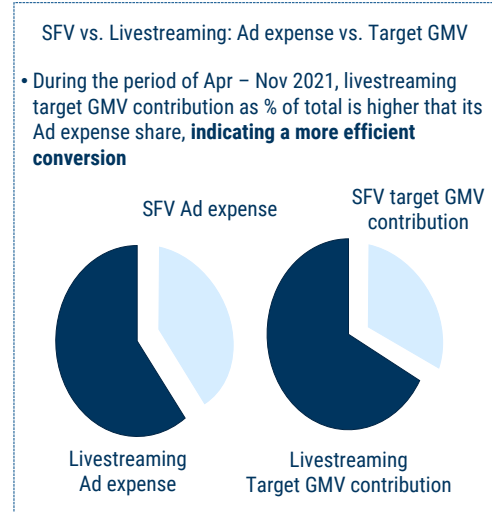
SFV is the main content category on Douyin, accounting for 85%+ total videos



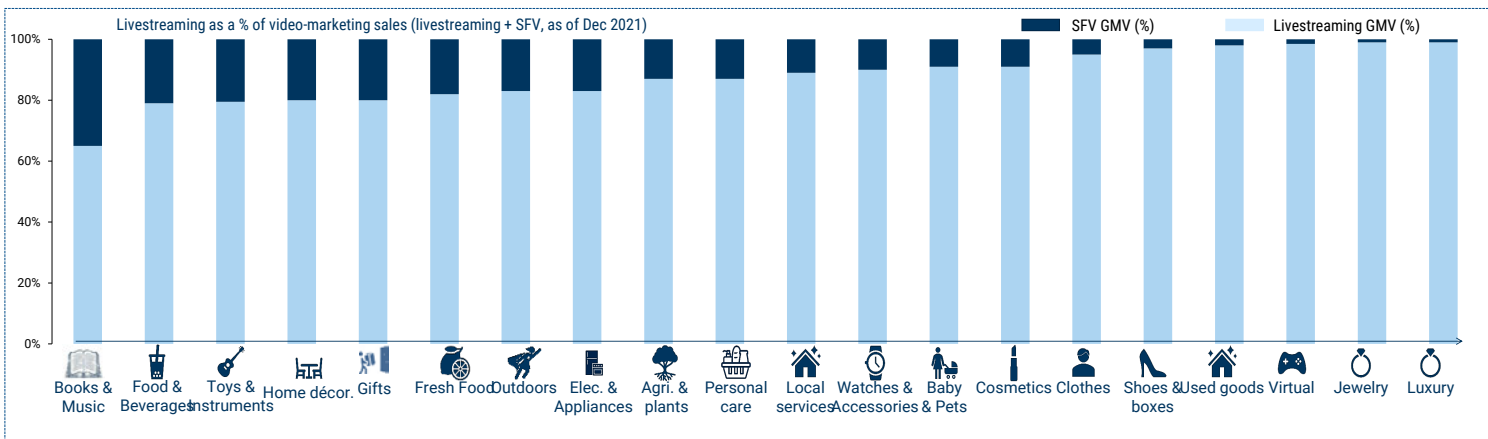
... but eCommerce-related livestreaming is gaining share on the platform



... and we notice that livestreaming typically has a better conversion

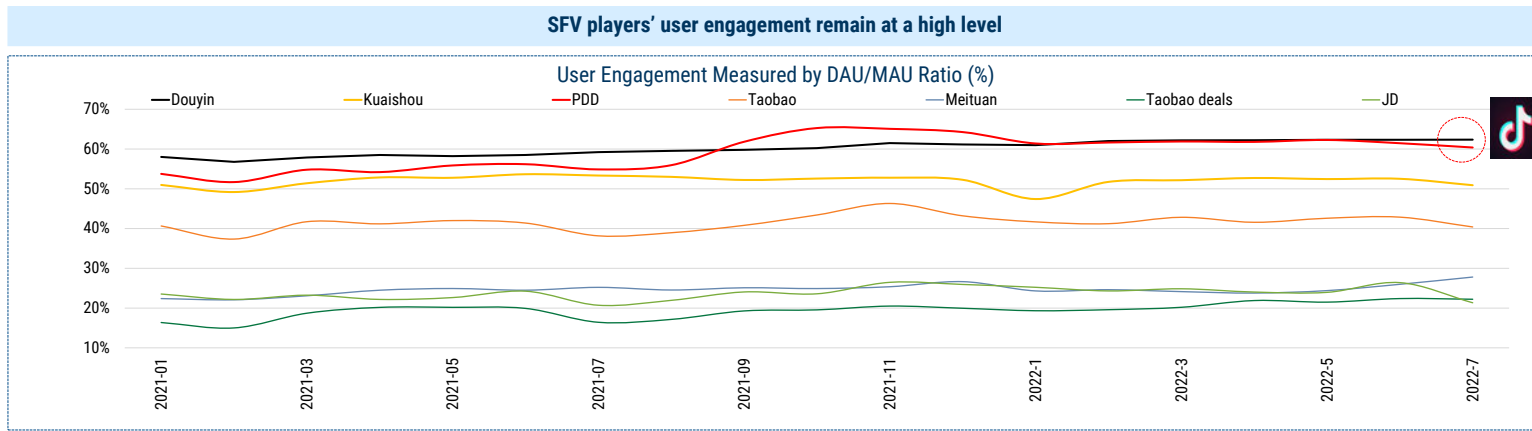


We observe that "Livestreaming + SFV" has become a new channel for video-marketing across categories



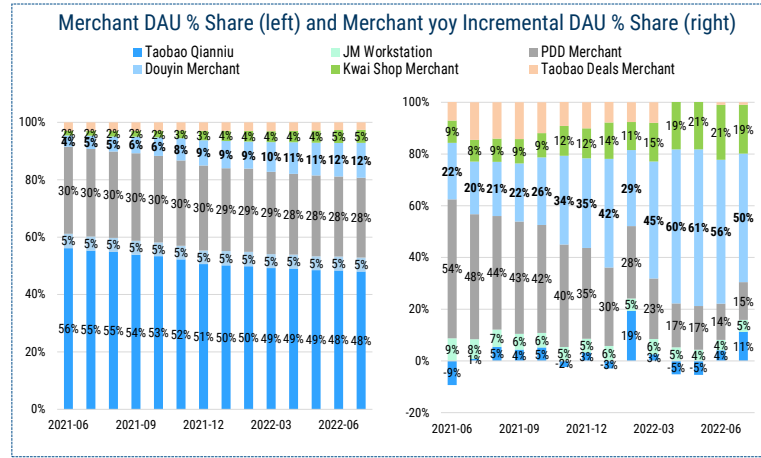
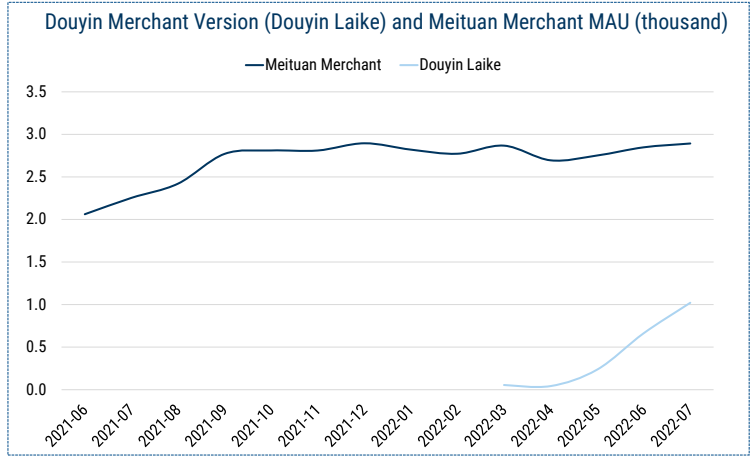
Source: Quest Mobile (as of Feb 2022), iResearch (as of Sept 2021), Compiled by Goldman Sachs Global Investment Research

Exhibit 15: From The Lens of Merchants: SFV players have seen strong user and merchant engagement



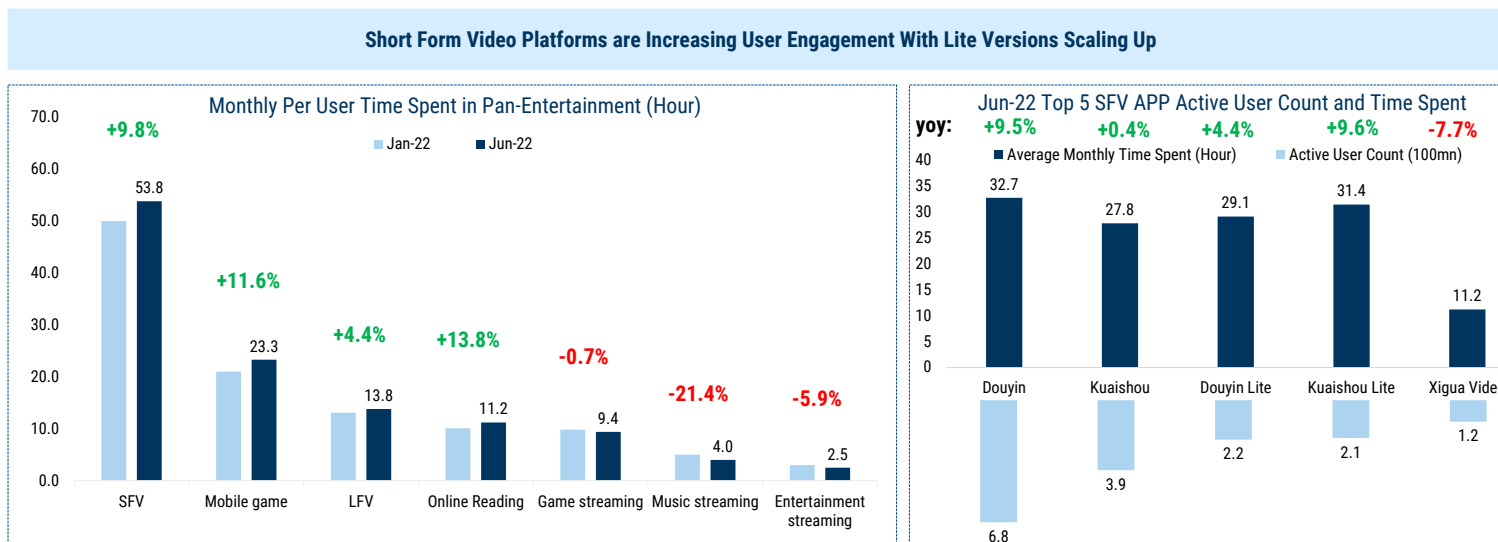
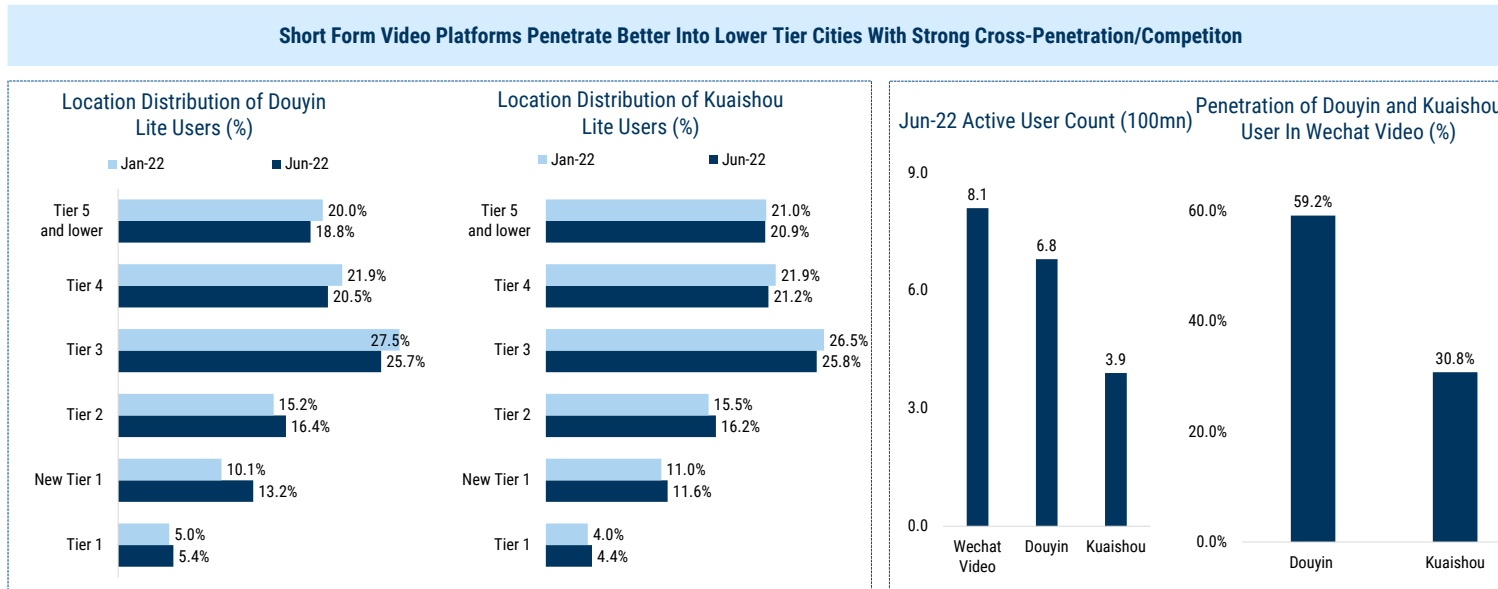
We observe strong merchant activities across eCommerce and local services (per QuestMobile)

Weekly DAU wow growth %	2022-03-03	2022-04-10	2022-04-17	2022-04-24	2022-04-01	2022-05-08	2022-05-15	2022-05-22	2022-05-29	2022-05-05	2022-05-12	2022-06-19	2022-06-26	2022-06-03	2022-07-10	2022-07-17	2022-07-24	2022-07-31
Meituan Food Delivery Merchant	-1%	-2%	3%	1%	0%	1%	3%	3%	0%	1%	1%	1%	0%	1%	1%	0%	0%	1%
Eleme Merchant	-1%	-3%	4%	2%	0%	0%	3%	2%	1%	1%	2%	1%	2%	1%	0%	0%	1%	0%
Meituan Merchant	1%	-1%	-3%	4%	2%	3%	-2%	5%	0%	7%	1%	2%	1%	4%	1%	-1%	0%	1%
Douyin Laike	29%	-24%	6%	15%	63%	61%	254%	64%	67%	92%	46%	29%	7%	9%	3%	10%	11%	29%



Source: Questmobile, Compiled by Goldman Sachs Global Investment Research

Exhibit 16: From the lens of shoppers: SFV platforms are trying to expanding the user base through (1) launch Lite version of the SFV apps to further penetrate lower-tier cities (2) introduce and encourage more knowledge/useful content to attract users with good education background who may think of using SFV as a time waste



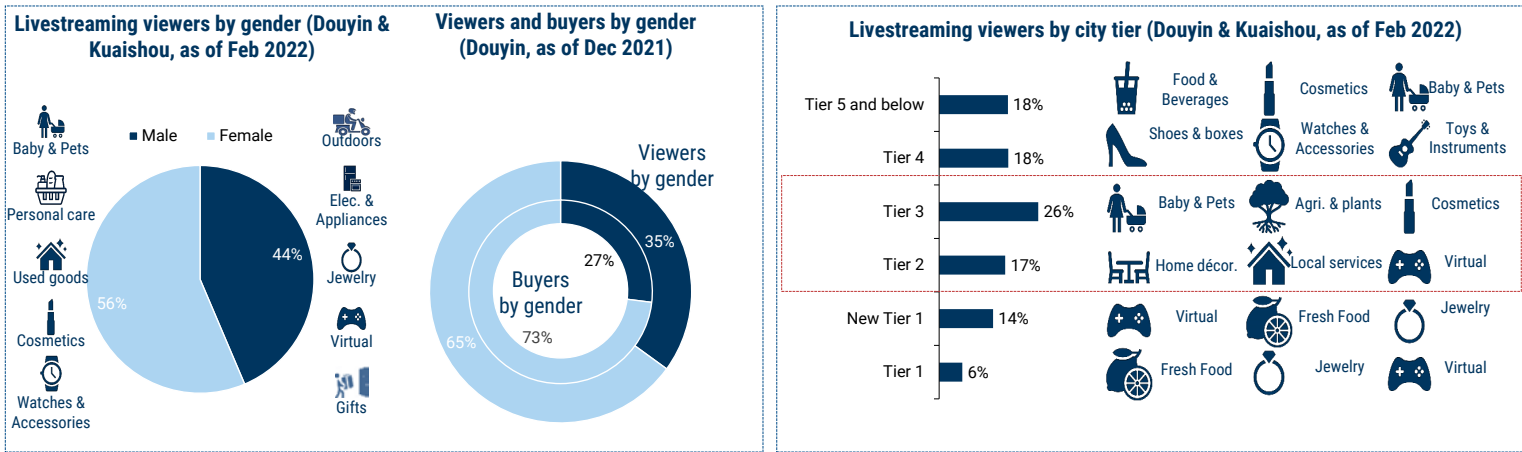
Source: Quest Mobile (as of Feb 2022), Chanmama (as of Dec 2021), WRD research institute (as of Jun 2021), FastData (as of Aug 2021), Feigua (as of Dec 2021), Compiled by Goldman Sachs Global Investment Research

Exhibit 17: From the lens of shoppers: livestreaming platforms penetrate better into females, lower-tier cities, younger cohorts, and those consumers that have never shopped on traditional eCommerce

Livestreaming platforms penetrate better into females, lower-tier cities, younger people, and those marginal consumers for traditional eCommerce platforms

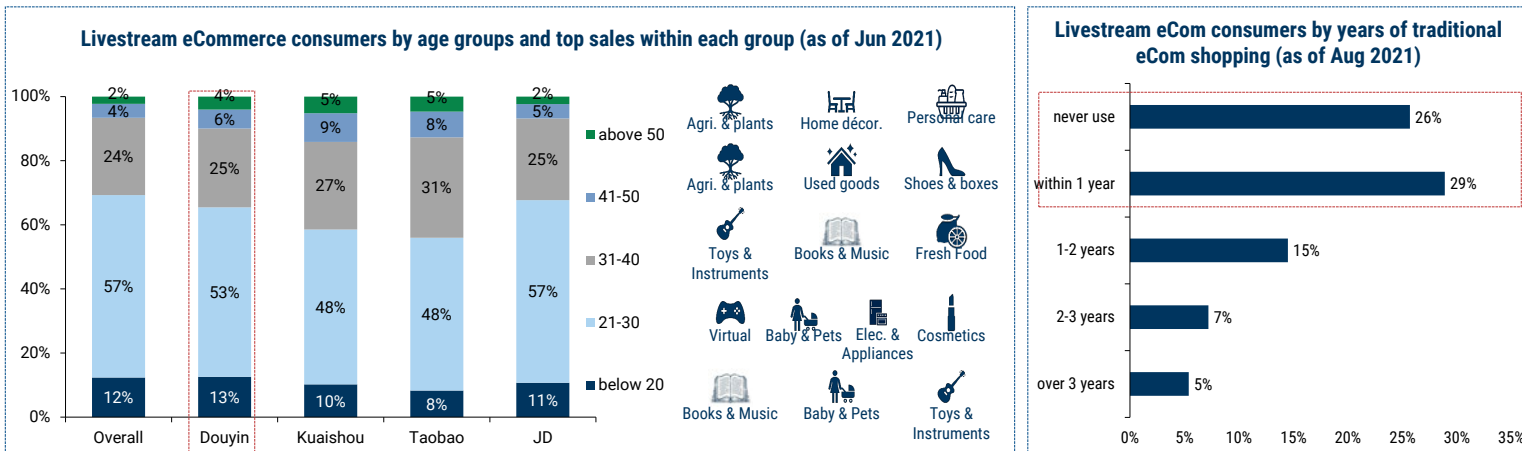
Gender: females are the majority, and on Douyin, 65% female viewers contribute 73% purchases... with male/female having different preference

City Tier: On Douyin and Kuaishou, 40%+ livestreaming viewers come from Tier 2&3 cities; while c.20% from New Tier 1 & Tier 1 cities



Age: 50+ buyers on livestreaming platforms are the young (21~30), with Douyin having the largest portion of users below 20; and top picks for the young include Electronics & Appliances, FMCG, Cosmetics, etc. products

"Marginal consumers" on traditional eCom platforms are more likely to transfer to livestream eCom



Source: Quest Mobile (as of Feb 2022), Chamama (as of Dec 2021), WRD research institute (as of Jun 2021), FastData (as of Aug 2021), Feigua (as of Dec 2021), Compiled by Goldman Sachs Global Investment Research

Case study of the top 2 SFV players Douyin & Kuaishou

Douyin, China's largest SFV player (in terms of MAUs), provides a wide array of entertainment options, including short-form videos and livestreaming across all categories, eCommerce, local services, etc. It leverages its algorithm to know users more day-by-day and recommend contents that each individual user is likely to favor.

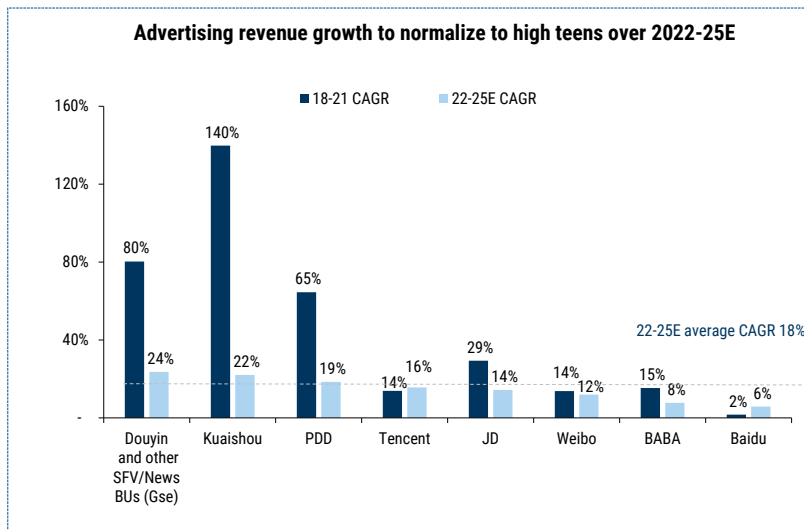
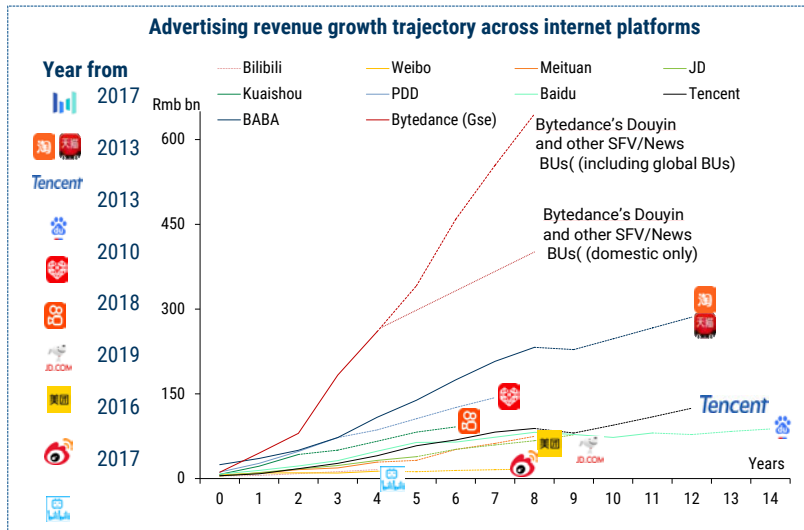
- **User engagement:** Douyin leads the industry with DAU of >600mn as of May 2022, according to the company, with a c.62% DAU/MAU ratio and timespent of 100+min (as per QuestMobile), implying sticky user base.
- **eCommerce:** Douyin first launched in-video shopping cart in early 2018 and subsequently launched Douyin Xiaodian in late 2018, enabling merchants (including JD, Vips, Xiaomi, etc to sell directly on Douyin). Then, in 2H20, Douyin disabled links to external platforms for its livestreaming (only allowed in SFV). Most recently, Douyin upgraded its eCommerce strategy from **"interest eCommerce"** to **"universal interest eCommerce"**, emphasizing its "people find products" ("人找货" in Chinese) to complement its more matured "products find people" ("货找人" in Chinese).

Kuaishou is a video creation and streaming platform that offers a variety of content to its users and viewer community in entertainment, learning, content creation and social interaction and now operates as the 2nd largest SFV players in terms of users in China.

- **User engagement:** Kuaishou had average DAU of 347mn in 2Q22, according to the company, with a c.51% DAU/MAU ratio (per QuestMobile), behind PDD/Douyin of 60%+, and daily timespent of 100+min.
- **eCommerce:** Kuaishou launched its Kuaishou Xiaodian in mid-2018 and introduced the concept of **"Trust-based eCommerce"**, where 80%+ Kuaishou users mostly purchase from known streamers. Private domain traffic has always been Kuaishou's strength vs. its peers. The platform is able to accumulate and maintain user relationships, constructing a trusted, cooperative, and intimate community.

Exhibit 18: SFV players continue to gain advertising budgets vs. incumbent players

We expect SFV players to deliver above-20% advertising revenue growth over 22-25E, outpacing industry growth of 18%



Shu Miao, CEO at Xiaoxiandun (小仙炖), an edible bird's-nest brand commented that SFV has become a major entertainment medium, and hence a significant way for Xiaoxiandun to communicate with consumers.

Xiaofeng Huang, CEO of Yatsen Holding Limited (YSG, Not Covered) believes that as the traffic benefits from social media platforms' gradual decay, the rise of Short Form Video platforms such as Douyin, Kuaishou fundamentally changed the channels for consumer brands to reach their customers.

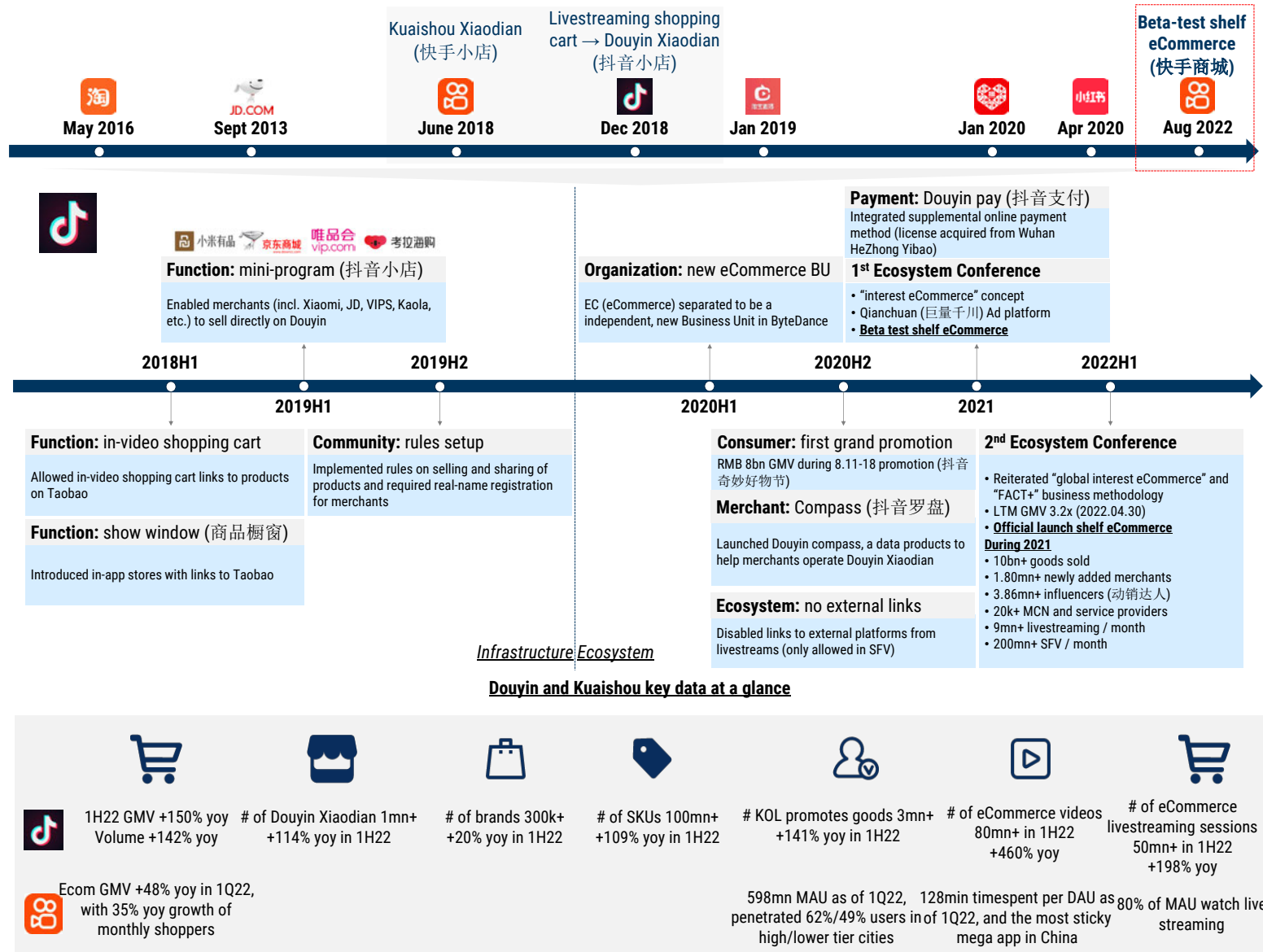
Haizhen Ma, founder of Chinese cosmetics brand Duola Duoshang commented that livestreaming eCommerce channels have been increasingly bringing new business opportunities and creating higher business value for legacy Chinese cosmetics brands like Duola Duoshang

Kai Kang, Strategy Director at Shandong Fengxiang Co., Ltd (9977.HK, Not Covered) believes that there are a growing number of young consumers and Shandong Fengxiang will continue online marketing on SFV.

Note: We calculate Douyin/Bytedance's (both Not Covered) relevant operating metrics (GMV, category mix etc.) by analyzing the industry and companies that we cover, and then extrapolating them to Douyin/Bytedance

Source: Quest Mobile (as of June 2022), Goldman Sachs Global Investment Research

Exhibit 20: Livestreaming eCommerce development history at a glance



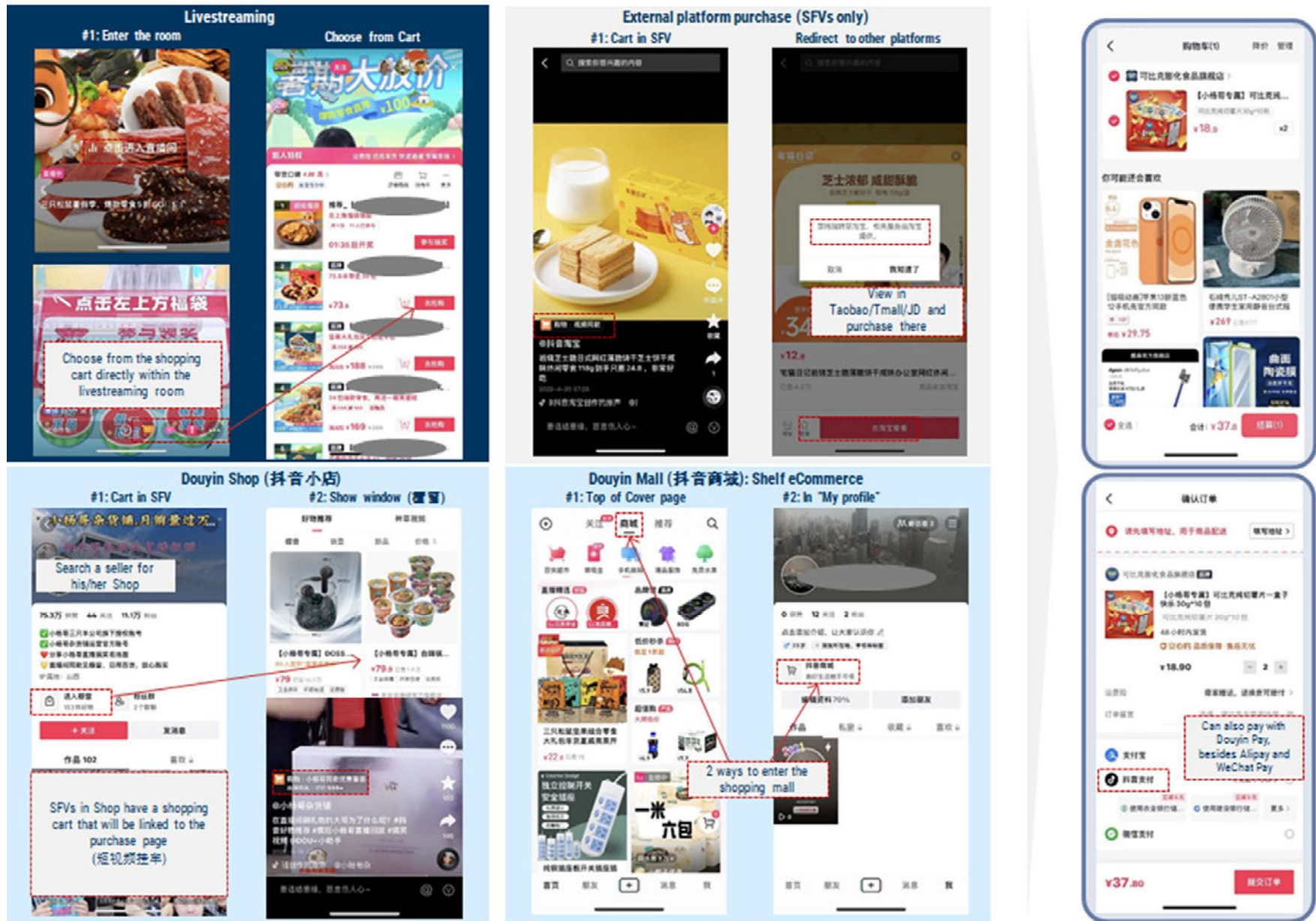
Source: Compiled by Goldman Sachs Global Investment Research, Sina, 36Kr, Company data

Exhibit 21: Consumers are driven to shop online by speed, quality, pricing; what the SFV players are doing and our comments

	Scale ("多" in Chinese)	Speed ("快" in Chinese)	Quality ("好" in Chinese)	Pricing ("省" in Chinese)																																																																																						
Key statistics	<p>We observe SFV players gaining incremental shares in merchant DAUs</p> <table border="1"> <thead> <tr> <th>Daily active users</th> <th>2022/1</th> <th>2022/2</th> <th>2022/3</th> <th>2022/4</th> <th>2022/5</th> <th>2022/6</th> </tr> </thead> <tbody> <tr> <td>Taobao Qianniu</td> <td>-3%</td> <td>19%</td> <td>3%</td> <td>-5%</td> <td>-5%</td> <td>4%</td> </tr> <tr> <td>JM Workstation</td> <td>6%</td> <td>5%</td> <td>6%</td> <td>5%</td> <td>4%</td> <td>4%</td> </tr> <tr> <td>PDD Merchant</td> <td>30%</td> <td>28%</td> <td>23%</td> <td>17%</td> <td>17%</td> <td>14%</td> </tr> <tr> <td>Douyin Merchant</td> <td>42%</td> <td>29%</td> <td>45%</td> <td>60%</td> <td>61%</td> <td>56%</td> </tr> <tr> <td>Kwai Shop Merchant</td> <td>14%</td> <td>11%</td> <td>15%</td> <td>19%</td> <td>21%</td> <td>21%</td> </tr> <tr> <td>Taobao Deals Merchant</td> <td>11%</td> <td>8%</td> <td>8%</td> <td>5%</td> <td>2%</td> <td>1%</td> </tr> </tbody> </table>	Daily active users	2022/1	2022/2	2022/3	2022/4	2022/5	2022/6	Taobao Qianniu	-3%	19%	3%	-5%	-5%	4%	JM Workstation	6%	5%	6%	5%	4%	4%	PDD Merchant	30%	28%	23%	17%	17%	14%	Douyin Merchant	42%	29%	45%	60%	61%	56%	Kwai Shop Merchant	14%	11%	15%	19%	21%	21%	Taobao Deals Merchant	11%	8%	8%	5%	2%	1%	<p>National daily parcel (mn)</p> <p>National avg processing time (hrs)</p>	<p>We checked 149 top selling brands on Tmall under 16 categories and 85% of which are officially available on Douyin and Kuaishou.</p> <table border="1"> <thead> <tr> <th></th> <th>No. of brands</th> <th>% of brands</th> </tr> </thead> <tbody> <tr> <td>Tmall only</td> <td>4</td> <td>3%</td> </tr> <tr> <td>Tmall + JD</td> <td>25</td> <td>17%</td> </tr> <tr> <td>Tmall + PDD</td> <td>0</td> <td>0%</td> </tr> <tr> <td>Tmall + JD + PDD</td> <td>120</td> <td>83%</td> </tr> <tr> <td>Douyin/Kuaishou</td> <td>122</td> <td>85%</td> </tr> <tr> <td>Total no. of brands</td> <td>149</td> <td>100%</td> </tr> </tbody> </table>		No. of brands	% of brands	Tmall only	4	3%	Tmall + JD	25	17%	Tmall + PDD	0	0%	Tmall + JD + PDD	120	83%	Douyin/Kuaishou	122	85%	Total no. of brands	149	100%	<p>Flash sale and value-for-money products are still the top reasons consumers purchase through livestreaming channels</p> <table border="1"> <tbody> <tr> <td>Flash sale</td> <td>45%</td> </tr> <tr> <td>Livestreamers' expertise</td> <td>41%</td> </tr> <tr> <td>Fans of livestreamers</td> <td>33%</td> </tr> <tr> <td>Value-for-money products</td> <td>29%</td> </tr> <tr> <td>Fun and interactive</td> <td>27%</td> </tr> <tr> <td>Trustworthy livestreamer</td> <td>18%</td> </tr> <tr> <td>Favored brands</td> <td>10%</td> </tr> <tr> <td>Others</td> <td>1%</td> </tr> </tbody> </table>	Flash sale	45%	Livestreamers' expertise	41%	Fans of livestreamers	33%	Value-for-money products	29%	Fun and interactive	27%	Trustworthy livestreamer	18%	Favored brands	10%	Others	1%
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What are the SFV players doing	<p>Take rates on SFV players are similar to Tmall, we believe brands/merchants are willing to list on multiple platforms</p> <table border="1"> <thead> <tr> <th>Category</th> <th>Tmall</th> <th>JD</th> <th>PDD</th> <th>Douyin</th> <th>Kuaishou</th> </tr> </thead> <tbody> <tr> <td>Electronics & Appliances</td> <td>2-5%</td> <td>2-8%</td> <td>0.6-1.0%</td> <td>2-5%</td> <td>2-5%</td> </tr> <tr> <td>Apparel</td> <td>5%</td> <td>8%</td> <td>0.6-1.0%</td> <td>5%</td> <td>5%</td> </tr> <tr> <td>Fresh food</td> <td>2%</td> <td>3%</td> <td>0.6-1.0%</td> <td>2%</td> <td>2%</td> </tr> <tr> <td>FMCG</td> <td>2-5%</td> <td>3-8%</td> <td>0.6-1.0%</td> <td>2-5%</td> <td>2-5%</td> </tr> <tr> <td>Cosmetics</td> <td>4-5%</td> <td>4-6%</td> <td>0.6-1.0%</td> <td>4-5%</td> <td>5%</td> </tr> <tr> <td>Pharma and healthcare</td> <td>3-5%</td> <td>5-10%</td> <td>0.6-2.5%</td> <td>3-4%</td> <td>3-4%</td> </tr> <tr> <td>Jewelry</td> <td>5%</td> <td>5-10%</td> <td>2.5-5%</td> <td>5%</td> <td>3-5%</td> </tr> <tr> <td>Others</td> <td>2-5%</td> <td>2-10%</td> <td>0.6-1.0%</td> <td>2-5%</td> <td>2-5%</td> </tr> </tbody> </table>	Category	Tmall	JD	PDD	Douyin	Kuaishou	Electronics & Appliances	2-5%	2-8%	0.6-1.0%	2-5%	2-5%	Apparel	5%	8%	0.6-1.0%	5%	5%	Fresh food	2%	3%	0.6-1.0%	2%	2%	FMCG	2-5%	3-8%	0.6-1.0%	2-5%	2-5%	Cosmetics	4-5%	4-6%	0.6-1.0%	4-5%	5%	Pharma and healthcare	3-5%	5-10%	0.6-2.5%	3-4%	3-4%	Jewelry	5%	5-10%	2.5-5%	5%	3-5%	Others	2-5%	2-10%	0.6-1.0%	2-5%	2-5%	<p>- SFV players collaborated with SF, ZTO, YTO, Yunda, J&T Express, etc to launch various express delivery service products, including:</p> <ol style="list-style-type: none"> "Yinzunda" (音尊达 in Chinese) in early 2022. "Jisuda" (极速达 in Chinese) in Jul 2022, offering same-day delivery within the city and next-day delivery in nearby cities. "Delivery upon request" premium service slated in Mar 2022. 	<p>- Qualified merchants on Douyin offer "Purchase without worries" (安心购 in Chinese).</p> <p>- Douyin's recommendation algorithm pushes the right/suitable eCommerce contents to users.</p> <p>- Kuaishou strategically emphasizes trust between KOLs and Users, developing trust eCommerce (信任电商 in Chinese) to ensure merchandise quality and sustainable development</p>	<p>- Non-standard/white-label products: SFV players' pricing is higher due to lack of transparency and it's harder for consumers to compare prices</p> <p>- Standard goods with bundling promotions: SFV players generate a higher ROI and profitability for merchants, enabling them to offer more discount</p> <p>- Highly-standardized individual goods with higher ASP: similar across platforms</p>																																
Category	Tmall	JD	PDD	Douyin	Kuaishou																																																																																					
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GS comments	<p>- Some brands are not yet willing to list on SFV players, as they try to maintain their pricing system and margins</p>	<p>- Delivery service not as stable as self-owned/in-house logistics such as JD Logistics</p> <p>- Overall, we see limited logistics impact on logistics experience vs. other eCommerce marketplaces</p>	<p>- SFV players eCommerce business is still at an early stage vs. other platforms and requires more rules/overseeing from the platform to improve the customer shopping experience</p>	<p>- We believe with a higher proportion of brands' self-broadcast (vs. KOLs), the pricing advantages will gradually weaken, but still remains attractive due to its ROI</p>																																																																																						

Source: Goldman Sachs Global Investment Research, Company data, QuestMobile

Exhibit 22: 4 ways to complete shopping on the Douyin App



Source: Compiled by Goldman Sachs Global Investment Research, Douyin app

Exhibit 23: 4 ways to complete shopping on the Kuaishou App

Live-streaming (Public domain)

#1: Enter the room

#2: Choose from Cart

Choose from the shopping cart directly within the livestreaming room

Live streaming (private domain)

Users will see recommended live streaming rooms of their followed content creators

Kwai Shop (快手小店)

#1: Cart in SFV

#2: Show window (橱窗)

SFVs in Shop have a shopping cart that will be linked to the purchase page (短视频挂车)

Kuaishou Mall (快手商城: Shelf eCommerce)

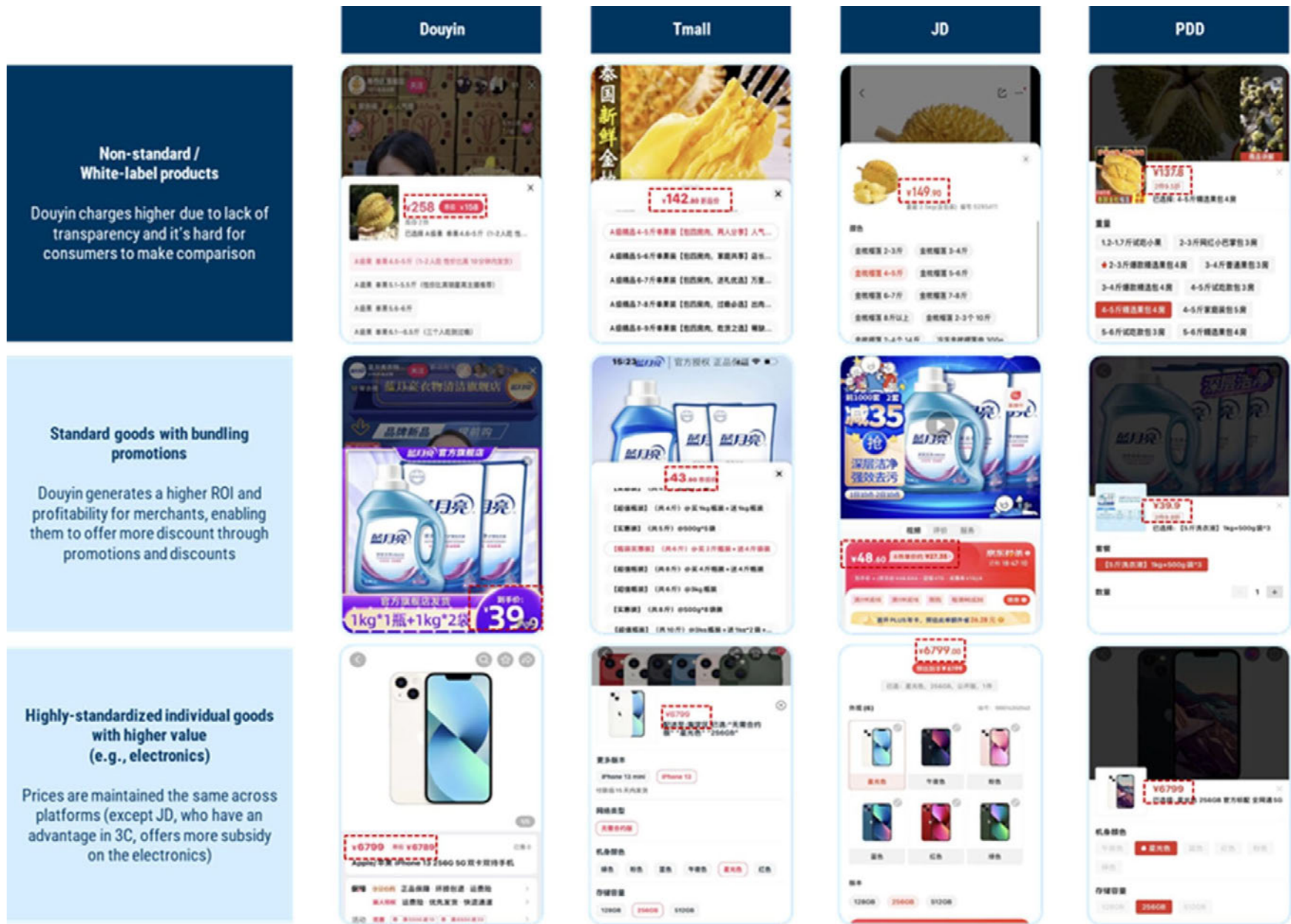
Clicking each category leads back to Kuaishou Shop

Special segment for subsidized established brands

Can use both Alipay and WeChat Pay

Source: Compiled by Goldman Sachs Global Investment Research, Kuaishou App

Exhibit 24: Pricing advantage differs in terms of product characteristics



Source: Douyin App, Tmall App, JD.com App, PDD App, Expert Call, Compiled by Goldman Sachs Global Investment Research

Landscape between Douyin, Kuaishou and Tencent's Video Accounts

The competition on **time spent** between Douyin, Kuaishou and Tencent remains intense, and we expect the three to **maintain relatively stable competitive landscape** with Douyin/Kuaishou/Tencent video accounts to take **50%/30%/20%** share by 2025E. On Tencent video account, we note it is achieving critical mass with timespent equivalent of 80% of WeChat Moments' level, with c.500mn DAU (vs. >600mn/>300mn for Douyin/Kuaishou) and c.30min viewing per DAU per day (vs. 120min for Douyin/Kuaishou), while still at early stage of monetization in terms of advertising and eCommerce. **On GMV share**, we forecast Tencent video to grow and capture Rmb800bn in online sales in the format of livestreaming by 2025E, accounting for c.15% share of the total of Douyin, Kuaishou and itself.

Competition between Douyin & Kuaishou

Competition within SFV space between Douyin and Kuaishou remains intense, leading to continuous pressure in user acquisition and retention for Kuaishou, we expect aggregate DAU/timespent of Kuaishou stabilizing at c.50%/c.60% of Douyin's level, driven by:


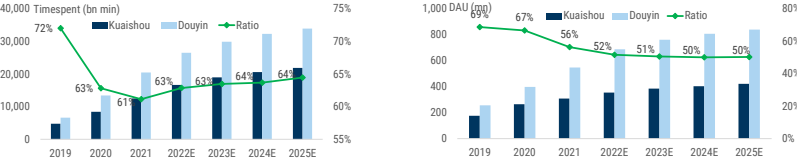

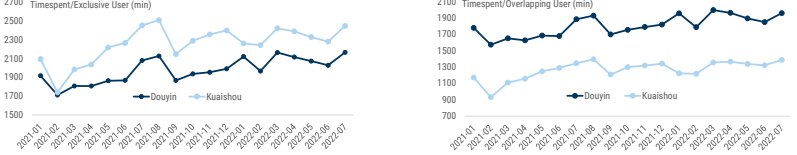

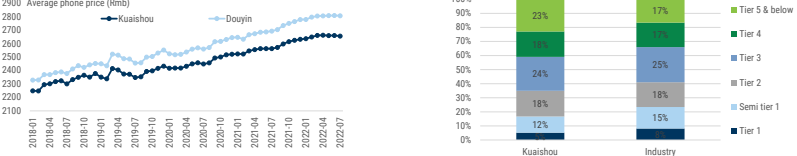

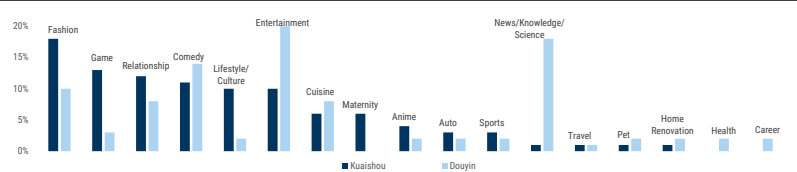



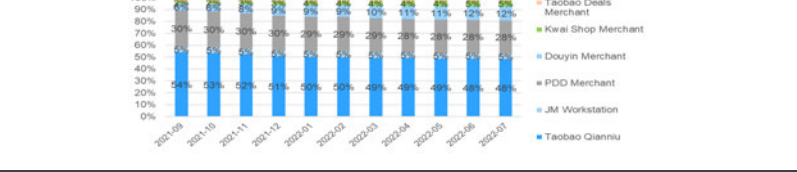
- **Rationalization of competition on user as both platforms** are at the later-cycle of the penetration curve. In Kuaishou's case organizational restructuring since 3Q21 has provided the company lever to improve internal cost synergies, with Douyin embarking on cost reduction and efficiency enhancement since 1H22.
- **Despite steadily increasing user overlap** among Kuaishou and Douyin (from 58% in Dec-18 to 64% in June-22), we see Kuaishou as a unique online community that provides differentiated value propositions to its targeted users, hence its existing user group will remain highly loyal to the platform and represent its key defensive business moat.

Tencent video accounts: time to pull the monetization levers

Video Accounts is achieving critical mass with timespent equivalent of 80% of Moments' level (note Moments is around 1/3 of Tencent's ad revenue).

- **Timespent:** we believe new usage scenarios (e.g. live streaming) contribute to incremental timespent with a separate adoption curve to SFV and may continue to lengthen timespent for the format. Longer-term, Tencent management considered Video Accounts to have higher eCPM (effective cost per mile) despite total timespent (potential room for ad inventory) to be lower than the industry incumbents.
- **eCPM:** Tencent video account's contract ad ECPM is now a premium to the 2 short-form video (SFV) incumbents, and with no disruption to user engagement as per management.

Exhibit 25: We expect the user engagement gap with Douyin to maintain stable, with Kuaishou excels in attracting exclusive users and lower-tier cities' users; The two companies remain differentiated as in content verticals, together gaining share in the eCommerce industry

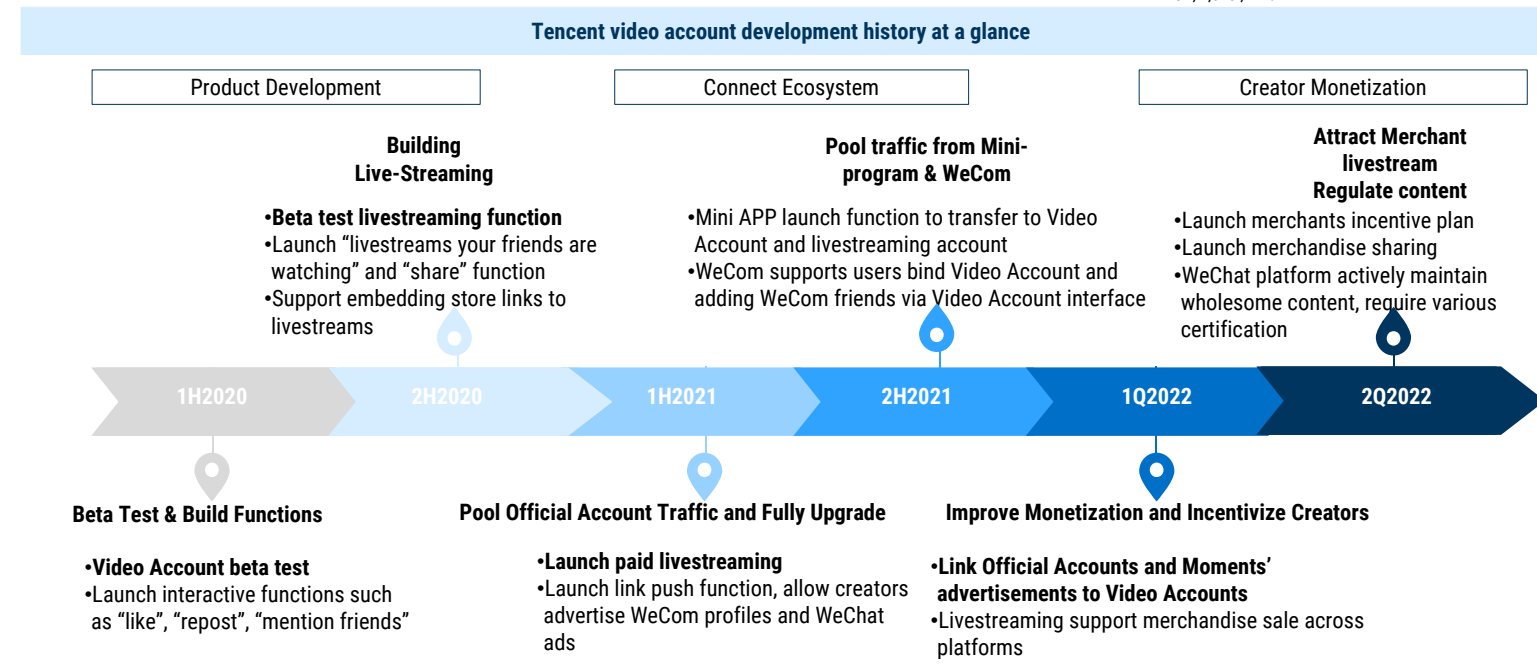
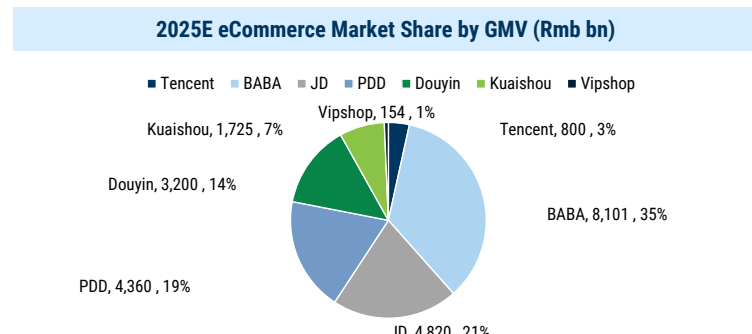
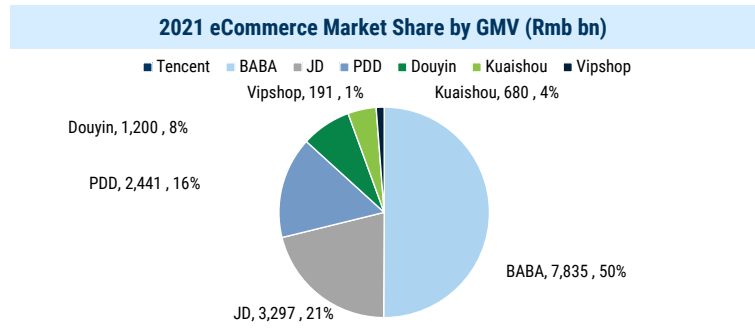
Key metrics	Comparison between Kuaishou & Douyin	Comments
 <p>User engagement</p>		<p>User engagement We expect Kuaishou's user engagement gap with Douyin to maintain at a stable level.</p>
 <p>User overlap</p>		<p>Timespent distribution of overlapping users Kuaishou attracts more timespent from its exclusive users, but lags when it comes to overlapping users.</p>
 <p>User demographic</p>		<p>User demographic While Kuaishou has more users in lower-tier cities, average user value measured by cellphone price (Kuaishou 5% lower than Douyin) suggest the difference is insignificant.</p>
 <p>Content category</p>		<p>Content categories Despite highly overlapping user cohort, the two SFV players remain differentiated by excelling in different content verticals.</p>
 <p>Revenue mix</p>		<p>Revenue mix As of 2021, 53% of Kuaishou's revenue is from online marketing (Douyin's 65%), and 38% of Kuaishou's revenue is from livestreaming (Douyin at 18%).</p>
 <p>Merchant market share</p>		<p>E-commerce merchants Both SFV players' merchants continue to gain share in the e-commerce industry, from conventional e-commerce platforms.</p>

We calculate Douyin's/Bytedance's (both Not Covered) relevant operating metrics (engagement, revenue, GMV, category mix etc.) by analyzing the industry and companies that we cover, and then extrapolating them to Douyin/Bytedance

Source: Company data, Questmobile

Exhibit 26: Time-spent market share, development timeline, and user demographic for Tencent video account

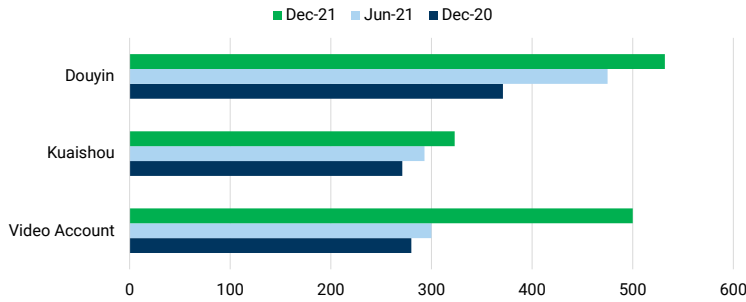
SFV platforms time spent market share development									
Market share (%) - SFV	2017	2018	2019	2020	2021	2022E	2023E	2024E	2025E
Douyin (inc. Lite/Huoshan)	22%	59%	54%	55%	52%	52%	51%	51%	50%
Kuaishou (inc. Lite)	78%	38%	39%	34%	32%	32%	33%	32%	32%
Tencent Video account	0%	0%	0%	7%	15%	15%	15%	16%	17%
Others	0%	2%	6%	4%	2%	1%	1%	1%	1%



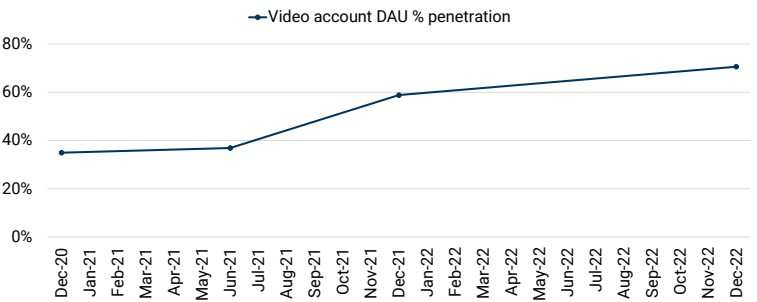
Source: Goldman Sachs Global Investment Research, Company data, QuestMobile

Exhibit 27: User demographic for Tencent Video Accounts

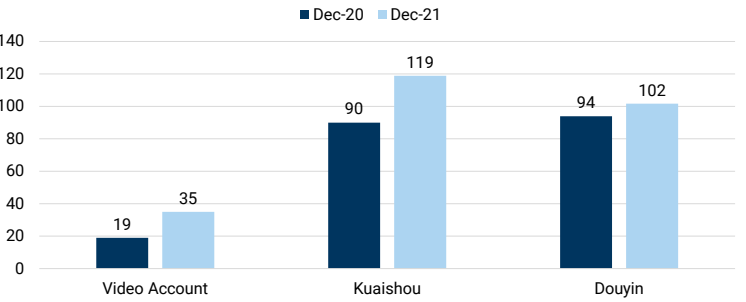
DAU: Video Account DAU has surpassed 500mn by end-21, ahead of Kuaishou and behind Douyin



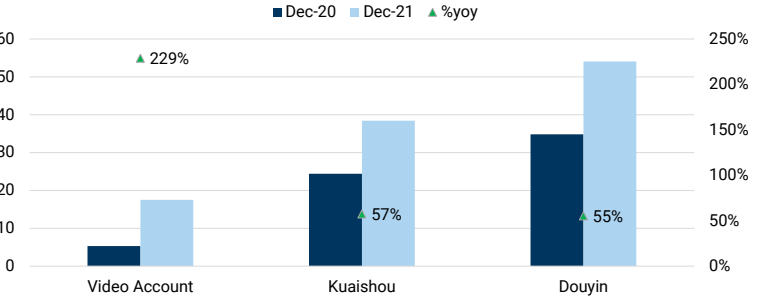
Video Account penetration has reached 60% of total DAU of Weixin



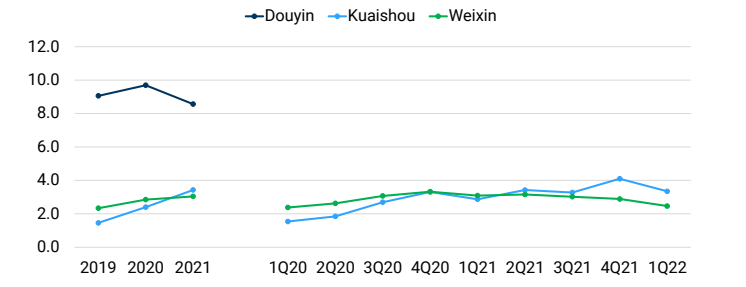
Time spent per DAU: Video Account time spent are 19/35mins as of Dec 20/21, behind Douyin, Kuaishou



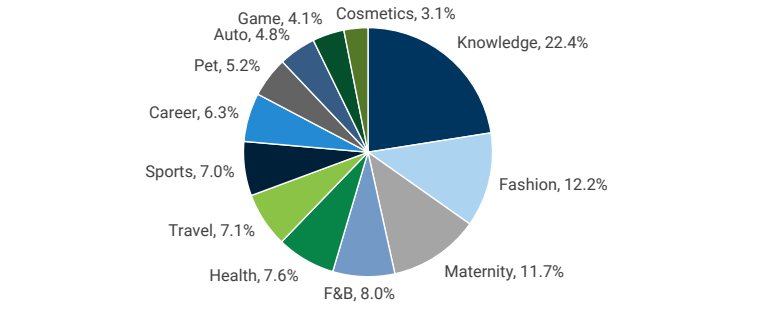
...yet total engagement growth of Video Account is 229% yoy



Ad Revenue/1000 mins time spent: Ad Rev on Weixin properties has seen sequential decline since 2021



Video Account content distribution by content category (as of June 2022)



Source: Quest Mobile, Company data, Compiled by Goldman Sachs Global Investment Research

How large can livestreaming be as a shopping format?

Livestreaming eCommerce has become a buzzword these past few years, frequently used by global internet companies' management (see [Exhibit 9](#)). In China, we are seeing SFV players leverage the tremendous amount of their traffic to quickly ramp up GMV, while the incumbents are also adding more livestreaming elements while maintaining their traditional formats. Globally, however, while livestreaming is still in its early days, internet giants are aware of this disruptive shopping format and testing the water by launching their own livestreaming eCommerce functionality or collaborating with third-party players. We assess the potential ceiling of livestreaming eCommerce in China from the lens of categories, taking the respective category's characteristics and strengths of the different formats/platforms into consideration.

Where are we now? We estimate the market size of livestreaming eCommerce at Rmb2.3tn in 2021, representing 15% share of online goods sales. By categories, we estimate livestreaming penetration of 25%+ for cosmetics, jewelry and apparel, 10-20% for pharmaceutical and healthcare products, FMCG (excl. cosmetics), while only single digit for electronics and appliances, fresh food.

What could happen by 2025E?

Base case (livestreaming eCommerce GMV of Rmb6tn, or 25% penetration): We assume mature categories like cosmetics, jewelry and apparel continue to grow, as the immersive experience grabs increasingly more of consumers' attention. For emerging categories like electronics & appliances, with infrastructure development, SFV players should be able to achieve certain growth. **Incrementally**, >50% of livestreaming eCommerce GMV comes from cosmetics, jewelry and apparel, where we believe livestreaming is a more effective shopping format.

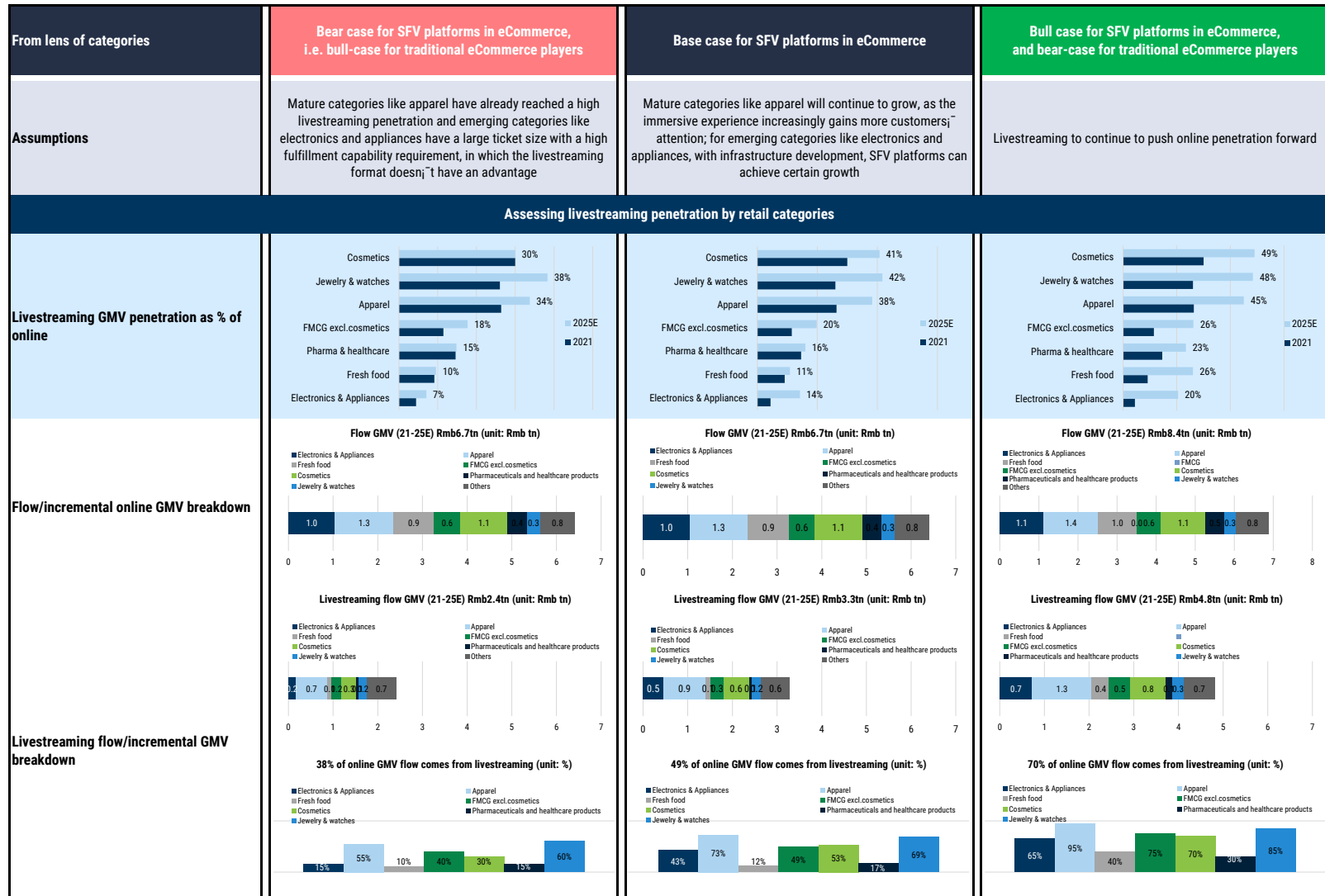
Bear case (livestreaming eCommerce GMV of Rmb5tn or 21% penetration): We assume mature categories like apparel have already reached a high livestreaming penetration; as emerging categories like electronics & appliances have a large ticket size with high fulfillment capability requirements, it is challenging for the livestreaming format to take meaningful share.

Bull case (livestreaming eCommerce GMV of Rmb7tn or 30% penetration): We assume online penetration of livestreaming further increases above our base case, tapping into consumers in lower-tier cities and those that were previously non-eCommerce users. Livestreaming penetration to surpass 20%+ across all categories, with cosmetics and jewelry reaching c.50% by 2025E. We assume livestreaming eCommerce's success in tapping into high-ticket size items, e.g. including autos via trusted livestreamers'/brands' own flagship livestreaming sessions, driving an overall larger market size of online retail (2021-25E CAGR of 11% vs. the base case of 9%).

See details of players' market share by category (see [Exhibit 38](#)) and each player's category contribution (see [Exhibit 39](#)).

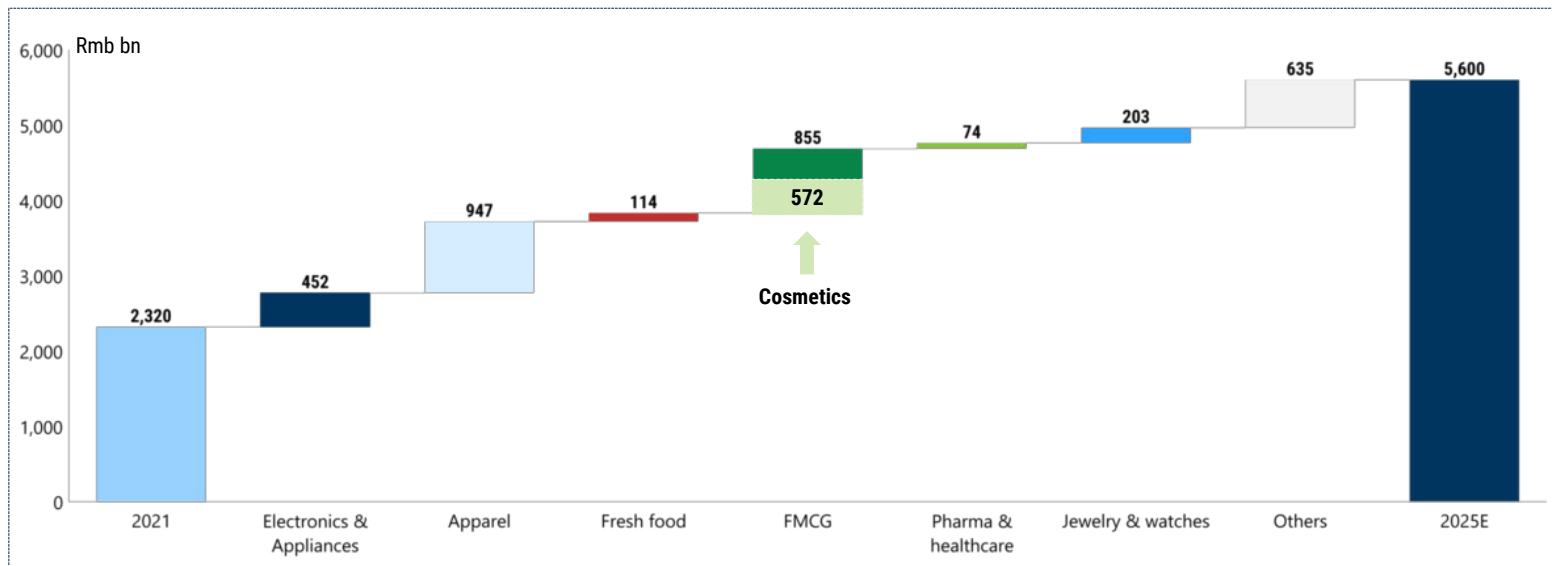
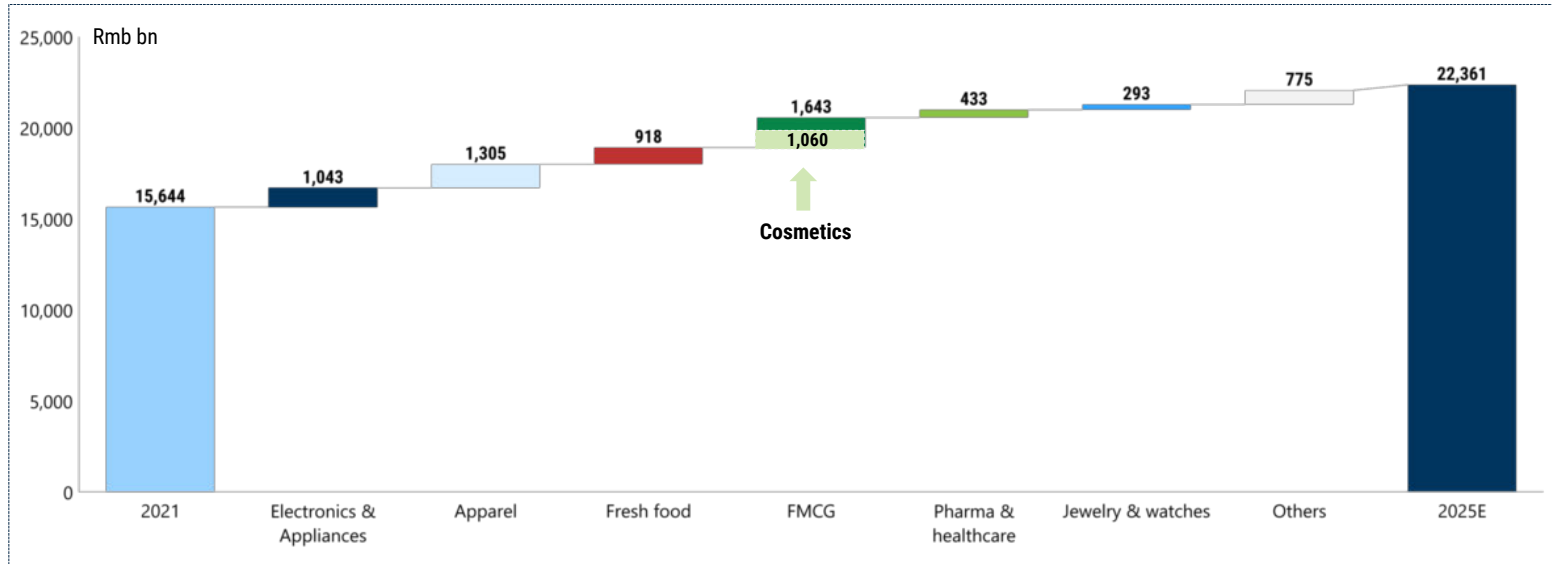
From the lens of categories

Exhibit 28: Bull/base/bear case for SFV players from the lens of category



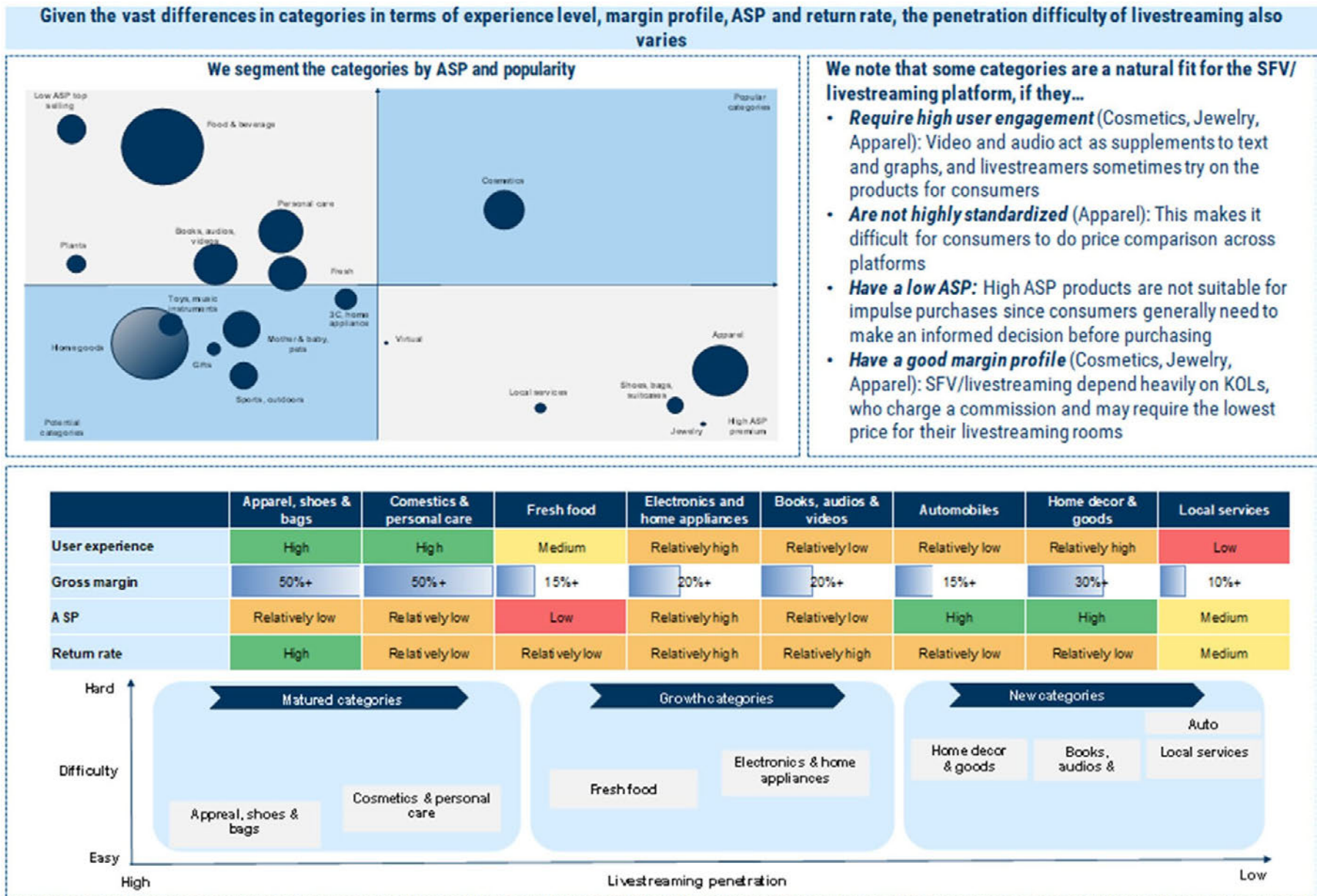
Source: Company data, Goldman Sachs Global Investment Research, NBS, Feigua, Sandalwood, Burningdata

Exhibit 29: Flow GMV by categories for livestreaming eCommerce (bottom) and total online sales (top)




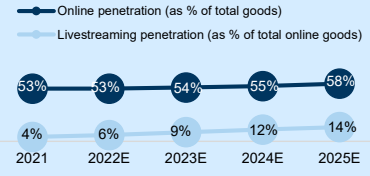

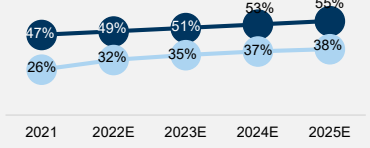

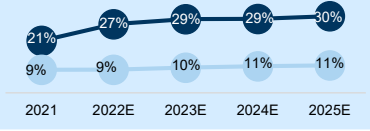

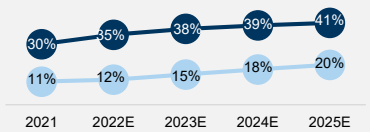

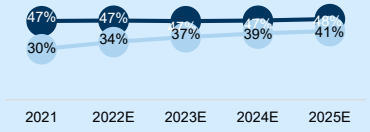

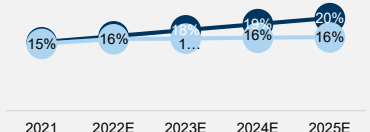

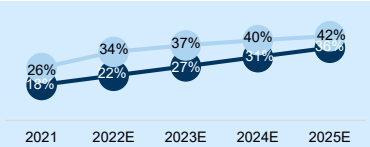
Source: Company data, Goldman Sachs Global Investment Research, NBS, Feigua, Sandalwood, Burningdata

Exhibit 30: From the lens of categories: An interactive shopping experience helps boost sales during livestreaming for categories like apparel, jewelry, etc.



Source: Company data, Goldman Sachs Global Investment Research, CBNDData, Xiaohulu

Exhibit 31: Livestreaming penetration trajectory and characteristics by category

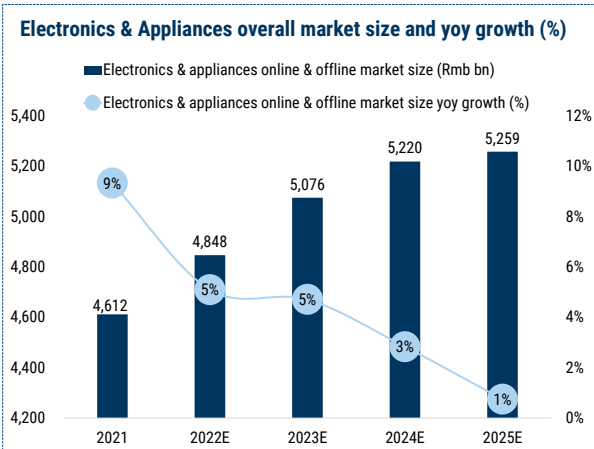
	Avg order value	Avg take rate	Livestreaming penetration	Characteristics
Electronics & Appliances 	Large appliances: Rmb2-2.5k , small appliances: Rmb500-600 , Electronics: Rmb2k	2-3.5%, 5-8% for accessories	 <p>Online penetration (as % of total goods): 53% (2021), 53% (2022E), 54% (2023E), 55% (2024E), 58% (2025E) Livestreaming penetration (as % of total online goods): 4% (2021), 6% (2022E), 9% (2023E), 12% (2024E), 14% (2025E)</p>	- Characteristics: large ticket size, low frequency, low take rate - Logistics: more time sensitive, light parcels for 3C & small appliances, heavy parcels for large appliances
Apparel 	Rmb60-100	5-8%	 <p>Online penetration (as % of total goods): 47% (2021), 49% (2022E), 51% (2023E), 53% (2024E), 55% (2025E) Livestreaming penetration (as % of total online goods): 26% (2021), 32% (2022E), 35% (2023E), 37% (2024E), 38% (2025E)</p>	- Characteristics: small ticket size, low frequency, high take rate - Logistics: less time sensitive, light parcels
Fresh food 	Traditional online shopping: Rmb80-150 , On-demand: Rmb60-80 , Community group purchase: Rmbc.10	2-3%	 <p>Online penetration (as % of total goods): 21% (2021), 27% (2022E), 29% (2023E), 29% (2024E), 30% (2025E) Livestreaming penetration (as % of total online goods): 9% (2021), 9% (2022E), 10% (2023E), 11% (2024E), 11% (2025E)</p>	- Characteristics: small ticket size, high frequency, low take rate - Logistics: more time sensitive, heavy parcels, cold-chain
FMCG (excl. Cosmetics) 	Traditional online shopping: Rmb80-150 , On-demand: Rmb60-80 , Community group purchase: Rmbc.10	2-8%	 <p>Online penetration (as % of total goods): 30% (2021), 35% (2022E), 38% (2023E), 39% (2024E), 41% (2025E) Livestreaming penetration (as % of total online goods): 11% (2021), 12% (2022E), 15% (2023E), 18% (2024E), 20% (2025E)</p>	- Characteristics: small ticket size, high frequency, take rate varies - Logistics: more time sensitive, parcel weight varies
Cosmetics 	Rmb50-100	4-6%	 <p>Online penetration (as % of total goods): 47% (2021), 47% (2022E), 47% (2023E), 47% (2024E), 47% (2025E) Livestreaming penetration (as % of total online goods): 30% (2021), 34% (2022E), 37% (2023E), 39% (2024E), 41% (2025E)</p>	- Characteristics: small ticket size, low frequency, high take rate
Pharma & healthcare 	Local on-demand: Rmbc.50 , traditional online shopping: Rmb100-200	5-10%	 <p>Online penetration (as % of total goods): 15% (2021), 16% (2022E), 17% (2023E), 18% (2024E), 20% (2025E) Livestreaming penetration (as % of total online goods): 15% (2021), 16% (2022E), 17% (2023E), 16% (2024E), 16% (2025E)</p>	- Characteristics: small ticket size, mid frequency, high take rate
Jewelry & watches 	Rmb500-2000	5-10%	 <p>Online penetration (as % of total goods): 26% (2021), 34% (2022E), 37% (2023E), 40% (2024E), 42% (2025E) Livestreaming penetration (as % of total online goods): 18% (2021), 22% (2022E), 27% (2023E), 31% (2024E), 33% (2025E)</p>	- Characteristics: high ticket size, low frequency, high take rate

Source: Company data, Goldman Sachs Global Investment Research, Sandalwood, Feigua, BurningData

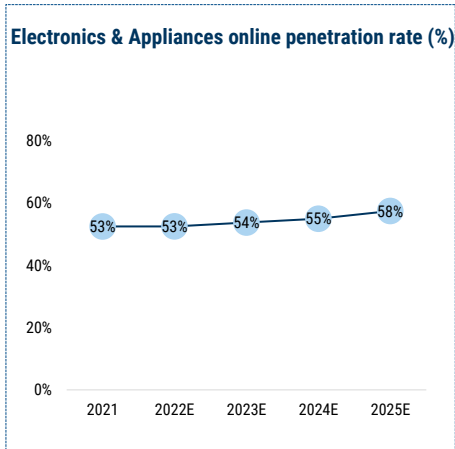
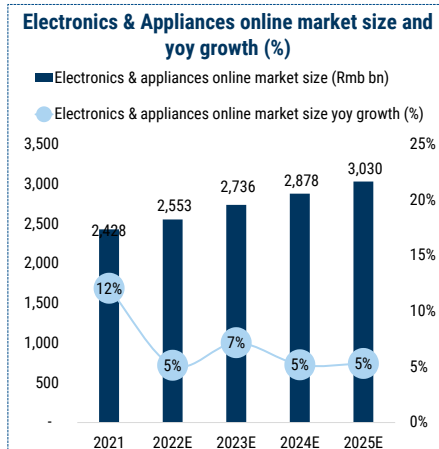
Exhibit 32: From the lens of categories: Electronics & appliances

Despite high online penetration, we believe livestreaming as a format is less effective for electronics & appliances vs. other categories

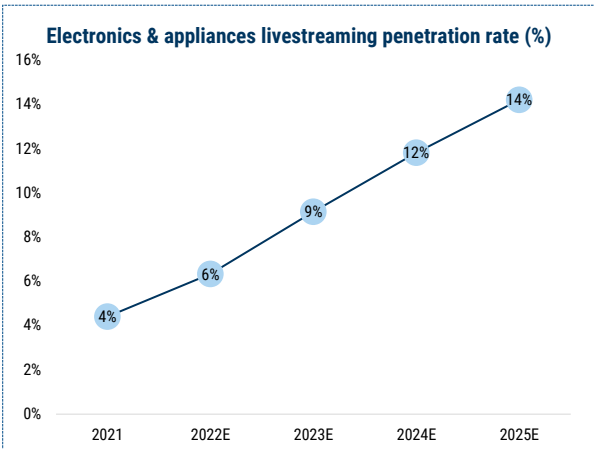
We expect the overall E&A market to reach Rmb5.3trn by 2025E, with a revenue CAGR of 3.3% over 2021-25E...



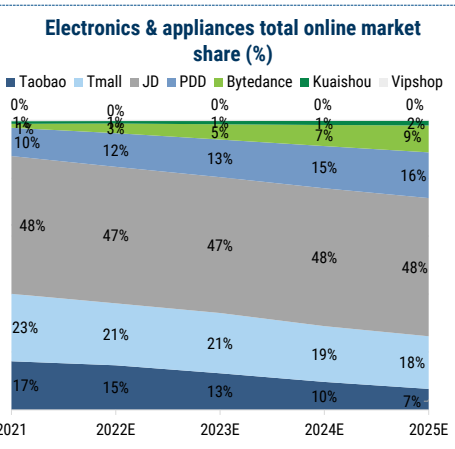
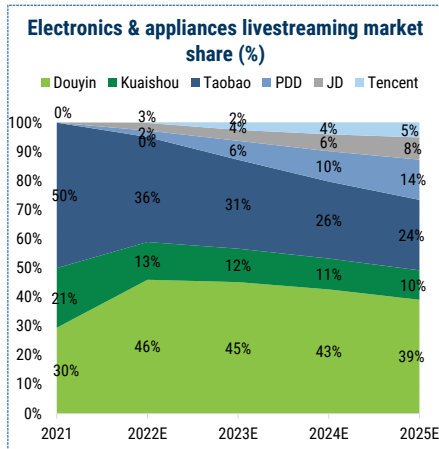
...while we expect online E&A to grow at a 5.7% CAGR, on improved penetration, from 53% in 2021 to 58% in 2025E



We expect E&A livestreaming penetration to improve, reaching 14% in 2025E...



... while Taobao loses market share of E&A livestreaming and JD maintains its position in the total online E&A market



Note: We calculate Douyin/Bytedance's (both Not Covered) relevant operating metrics (GMV, category mix etc.) by analyzing the industry and companies that we cover, and then extrapolating them to Douyin/Bytedance

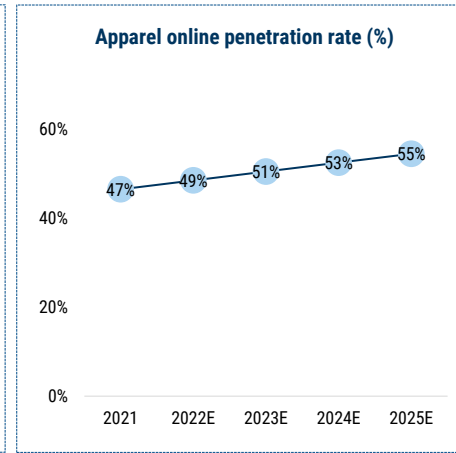
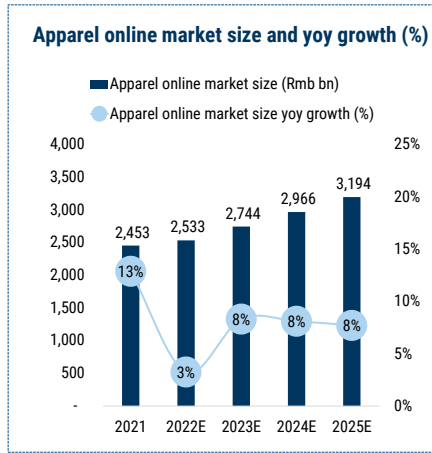
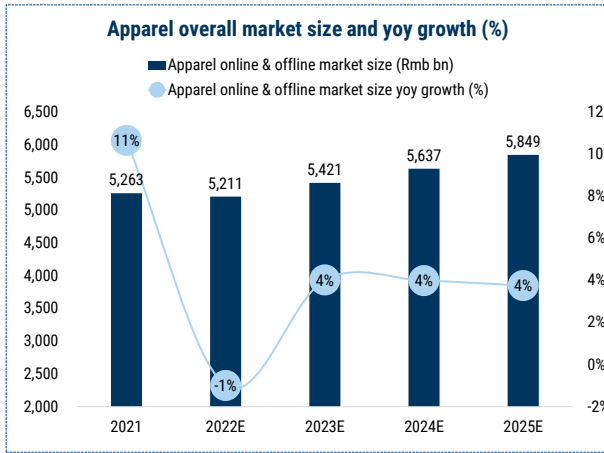
Source: Company data, Goldman Sachs Global Investment Research, Sandalwood, Feigua, BurningData

Exhibit 33: From the lens of categories: Apparel

We expect livestreaming penetration for apparel to improve from 27% in 2021 to 38% in 2025E, making it one of the most penetrated categories

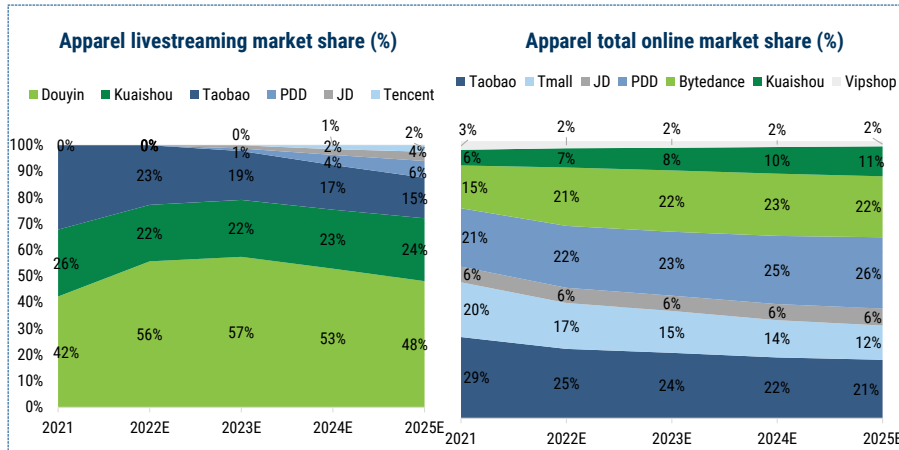
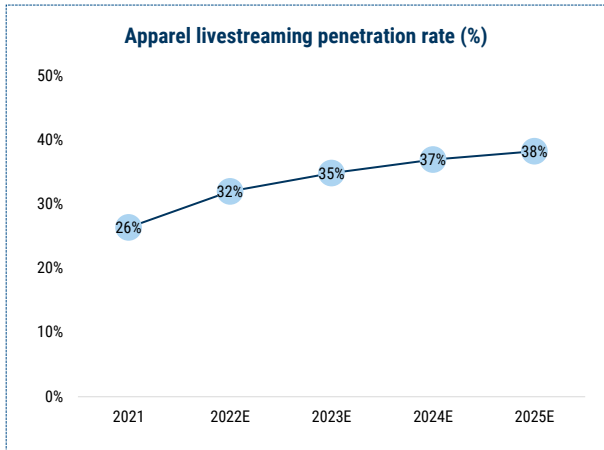
We expect the overall apparel market to reach Rmb5.8trn by 2025E, with a revenue CAGR of 2.7% over 2021-25E...

...while we expect online apparel sales to grow at an 6.8% CAGR, on improved penetration from 47% in 2021 to 55% in 2025E



We expect apparel livestreaming penetration to continue to grow rapidly, reaching 38% in 2025E...

..with SFV players' market share to improve to 30%+ in 2025E, from 20%+ in 2021



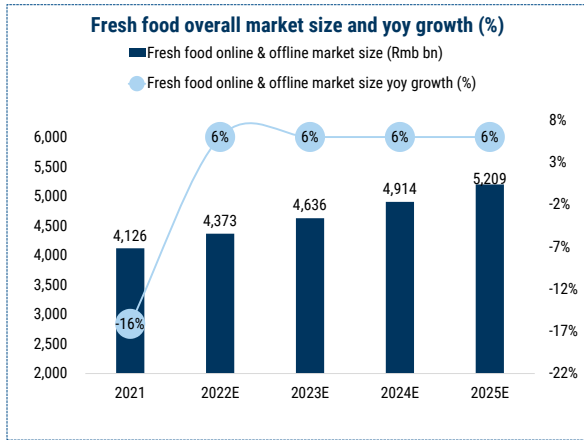
Note: We calculate Douyin/Bytedance's (both Not Covered) relevant operating metrics (GMV, category mix etc.) by analyzing the industry and companies that we cover, and then extrapolating them to Douyin/Bytedance

Source: Company data, Goldman Sachs Global Investment Research, Sandalwood, Feigua, Burningdata

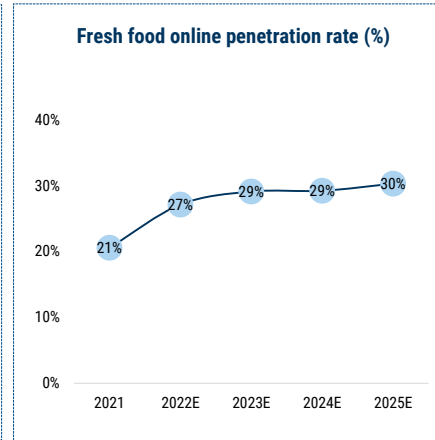
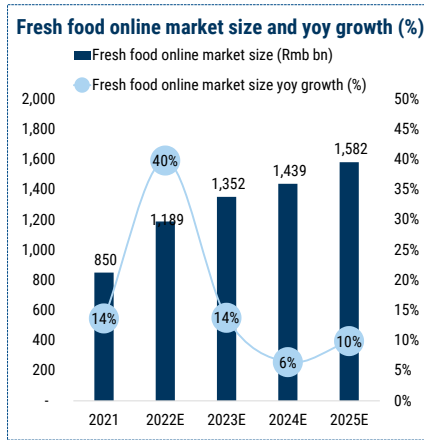
Exhibit 34: From the lens of categories: Fresh food, including agricultural products

Fresh food online penetration to improve from 21% to 30% by 2025E, with eCommerce players' increasing focus, while livestreaming penetration remains in low teens

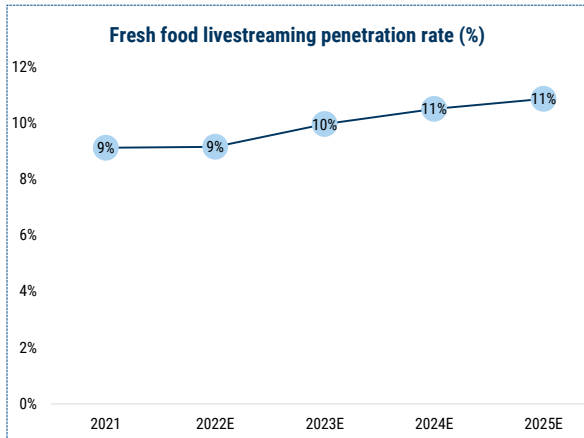
We expect the overall fresh food market to reach Rmb5.2trn by 2025E, with a revenue CAGR of 6.0% over 2021-25E...



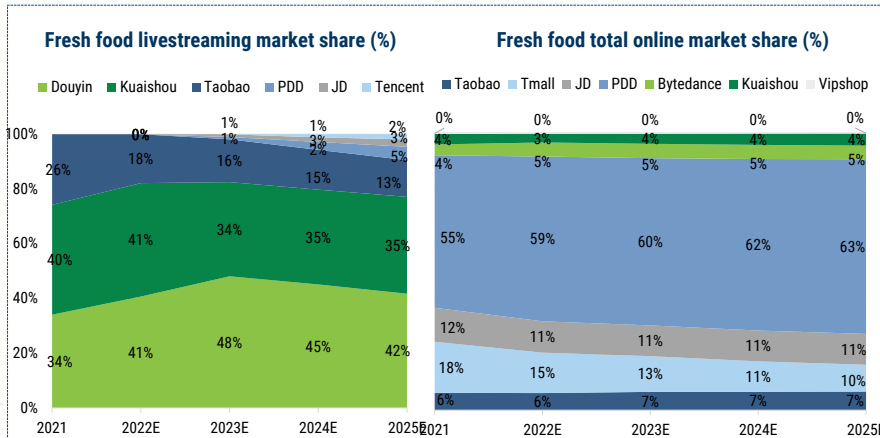
...while we expect the online fresh food market to reach Rmb1.6trn by 2025E, with online penetration increasing from 21% in 2021 to 30% in 2025E



We expect fresh food livestreaming penetration to remain at a relatively low level, growing from 9% in 2021 to 11% in 2025E...



...while Taobao and Tmall lose significant market share in both fresh food livestreaming and total online market



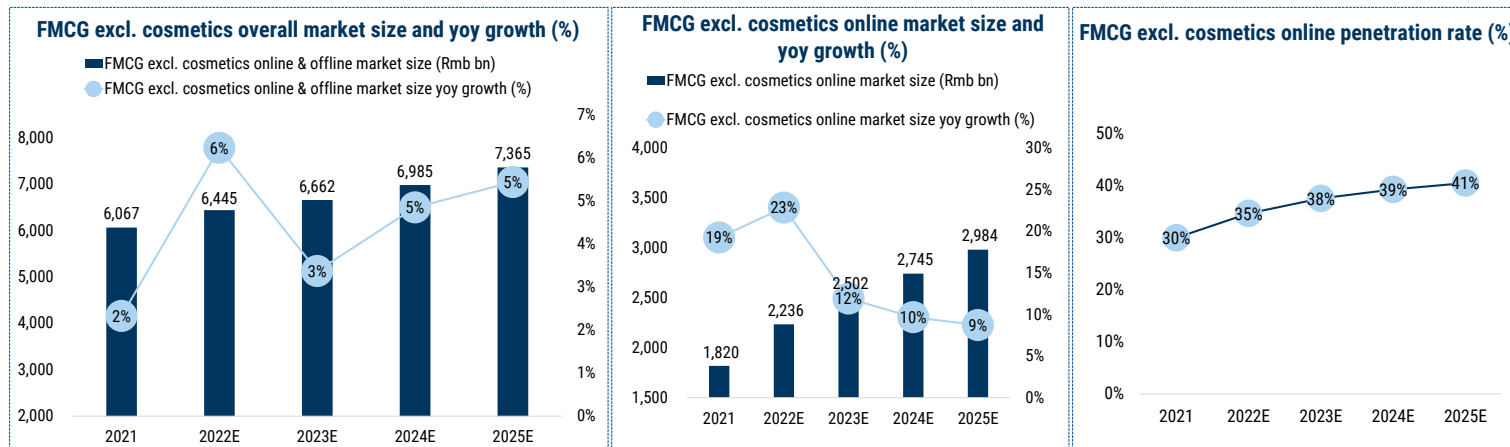
Note: We calculate Douyin/Bytedance's (both Not Covered) relevant operating metrics (GMV, category mix etc.) by analyzing the industry and companies that we cover, and then extrapolating them to Douyin/Bytedance

Source: Company data, Goldman Sachs Global Investment Research, Sandalwood, Feigua, Burningdata

Exhibit 35: From the lens of categories: FMCG (excl. cosmetics)

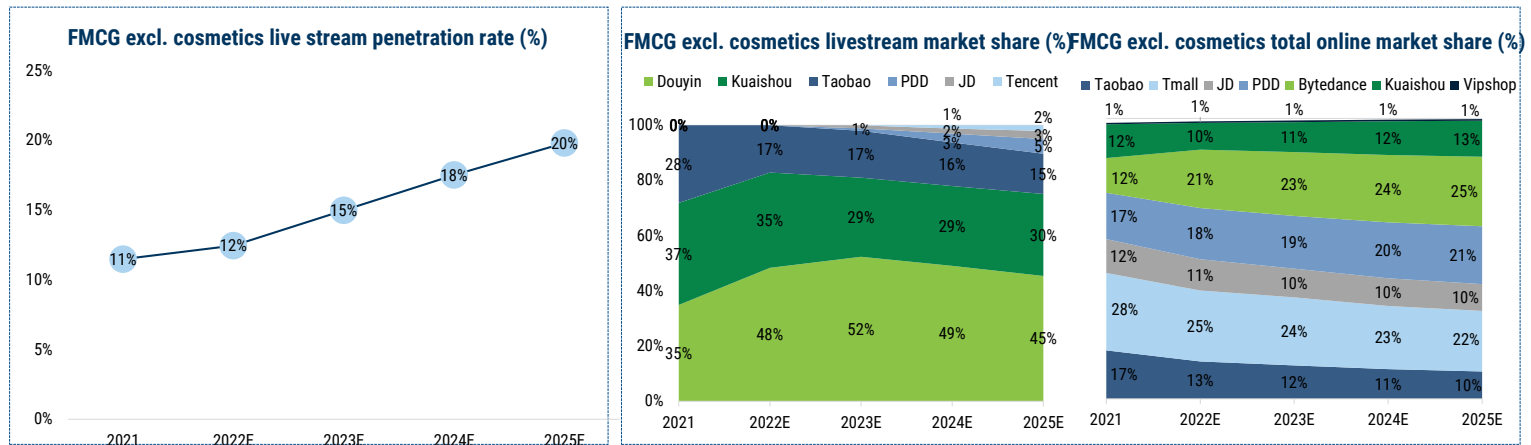
FMCG excl. cosmetics online penetration to improve from 30% to 41% by 2025E, with eCommerce players' increasing focus, while livestreaming penetration improves to 20%

We expect the overall FMCG excl. cosmetics market to reach Rmb7.4trn by 2025E, with a revenue CAGR of 5.0% over 2021-25E... while we expect the FMCG excl. cosmetics market to reach Rmb3.0trn by 2025E, with online penetration increasing from 30% in 2021 to 41% in 2025E



We expect FMCG excl. cosmetics livestreaming penetration to continue to increase from 11% in 2021 to 20% in 2025E...

...with SFV players' market share reaching c.38% in 2025E, from c. 24% in 2021



Note: We calculate Douyin/Bytedance's (both Not Covered) relevant operating metrics (GMV, category mix etc.) by analyzing the industry and companies that we cover, and then extrapolating them to Douyin/Bytedance

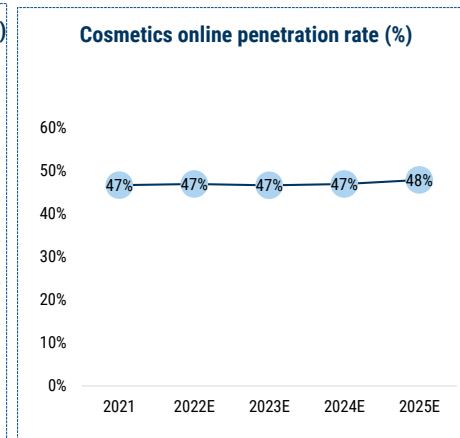
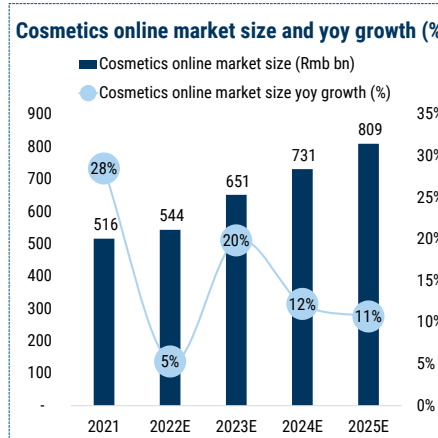
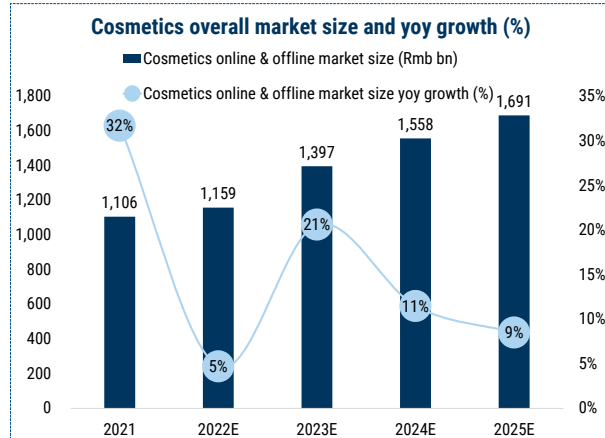
Source: Company data, Goldman Sachs Global Investment Research, Sandalwood, Feigua, Burningdata

Exhibit 36: From the lens of categories: Cosmetics

Cosmetics online penetration to largely run its course, while livestreaming penetration improves to 41% by 2025E

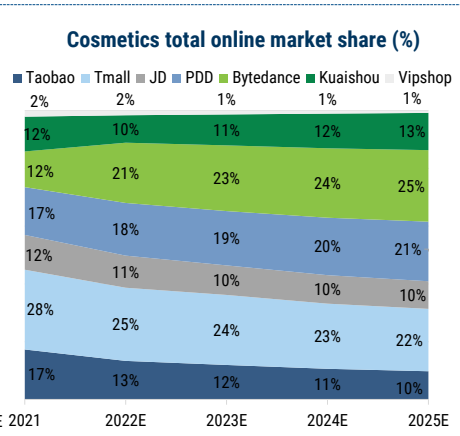
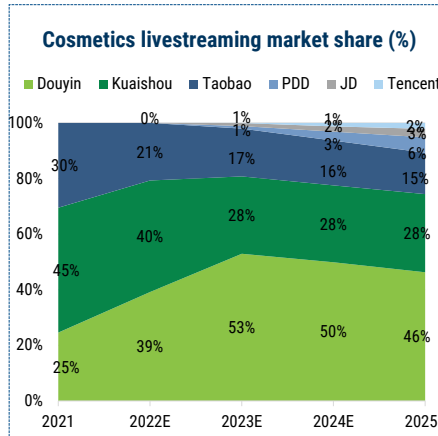
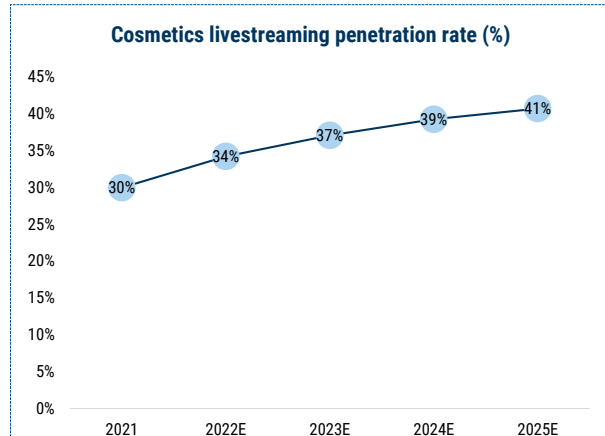
We expect the overall cosmetics market to reach Rmb1.7trn by 2025E, with a revenue CAGR of 11.2% over 2021-25E...

...while we expect the cosmetics online market to grow in line with the overall market to Rmb0.8trn by 2025E, on a stable online penetration rate



We expect cosmetics livestreaming penetration to continue to increase from 30% in 2021 to 41% in 2025E...

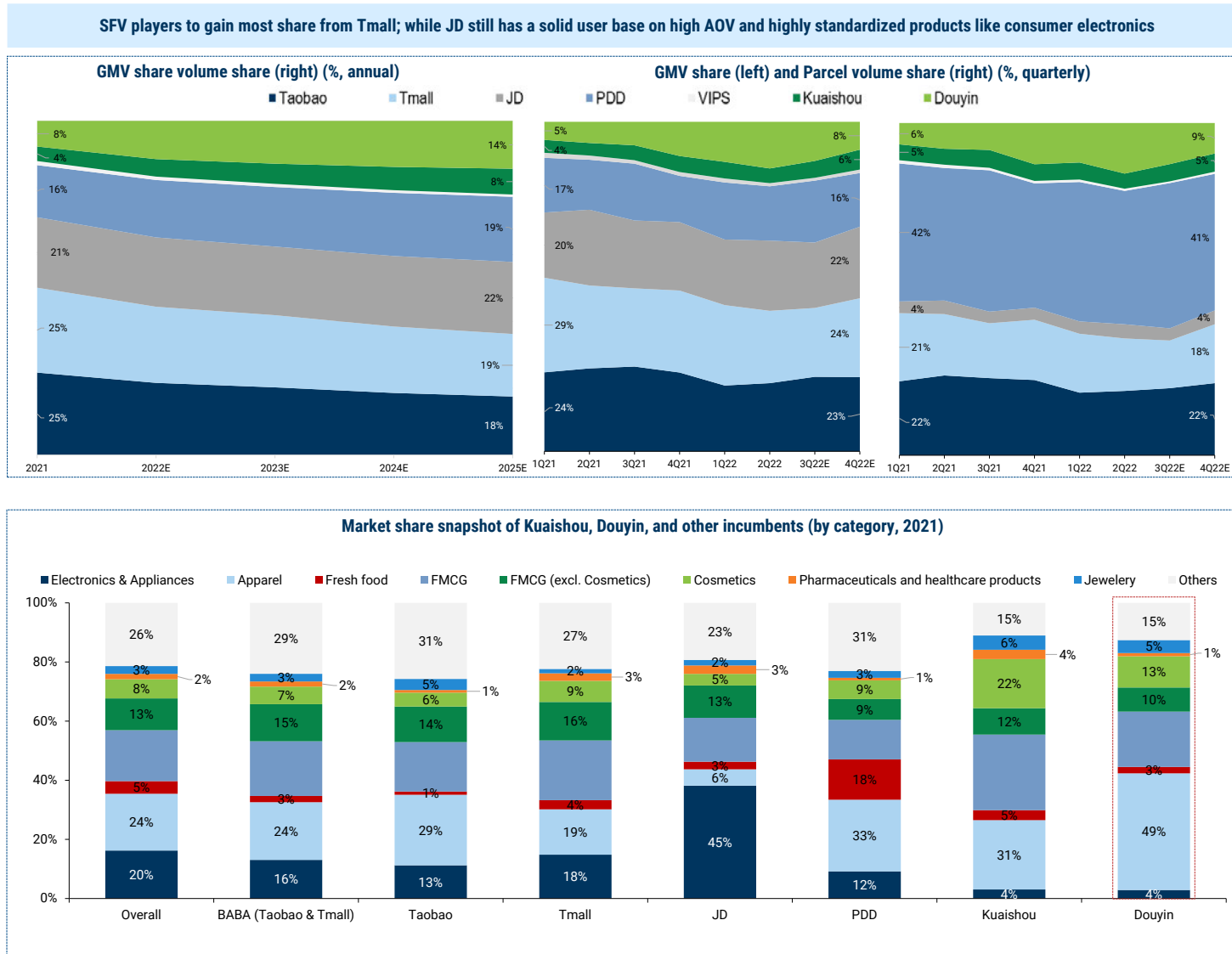
...with SFV players/ market share reaching c.34% in 2025E, from c.20% in 2021



Note: We calculate Douyin/Bytedance's (both Not Covered) relevant operating metrics (GMV, category mix etc.) by analyzing the industry and companies that we cover, and then extrapolating them to Douyin/Bytedance

Source: Company data, Goldman Sachs Global Investment Research, Sandalwood, Feigua, Burningdata

Exhibit 37: From the lens of categories: We also observe the evolution of penetration and the landscape



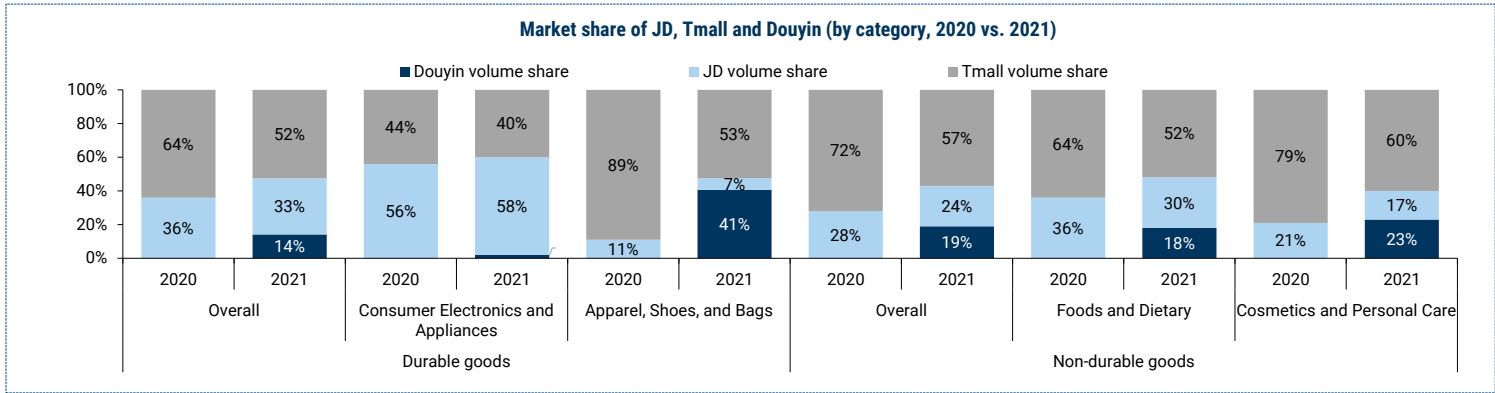
Note: We calculate Douyin/Bytedance's (both Not Covered) relevant operating metrics (GMV, category mix etc.) by analyzing the industry and companies that we cover, and then extrapolating them to Douyin/Bytedance

Source: Company data, Goldman Sachs Global Investment Research, Sandalwood, Feigua, BurningData

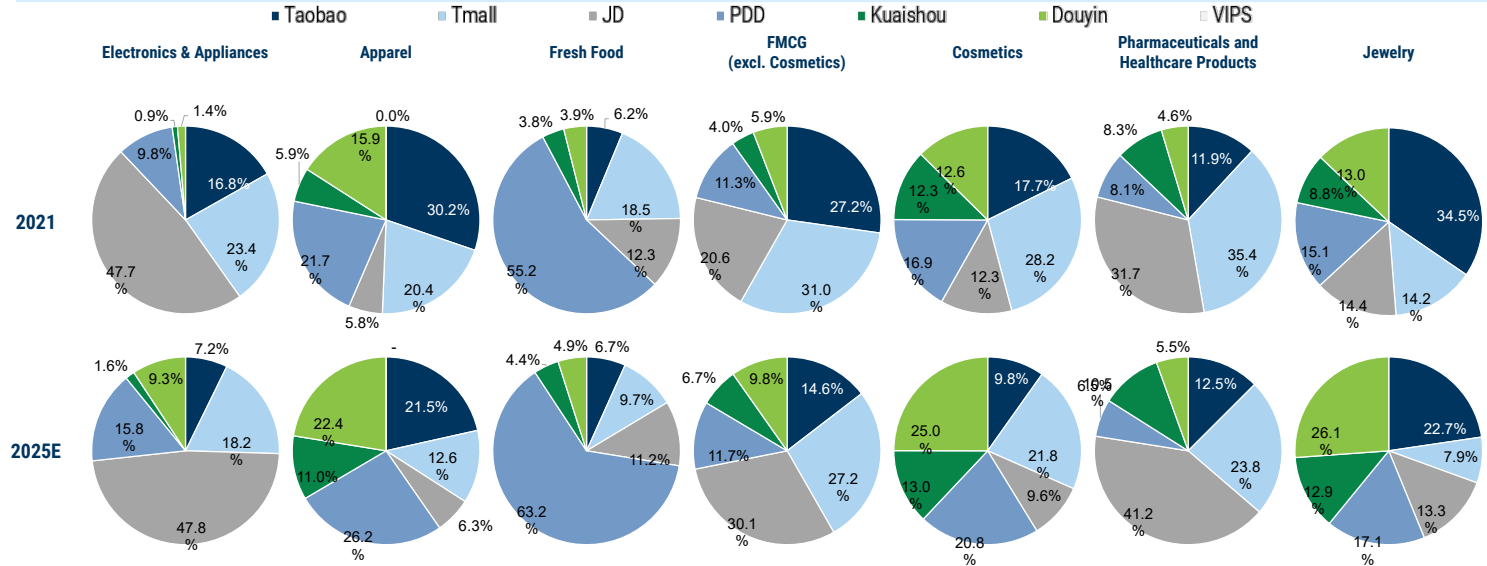
Exhibit 38: From the lens of categories: We also observe the evolution of penetration and the landscape (continued)

SFV players to gain most share from Tmall; while JD still has a solid user base on high AOV and highly standardized products like consumer electronics

Douyin joined the competition and gained most share from Tmall; JD's share dropped slightly... and Apparel is the category where the incumbents have lost the most



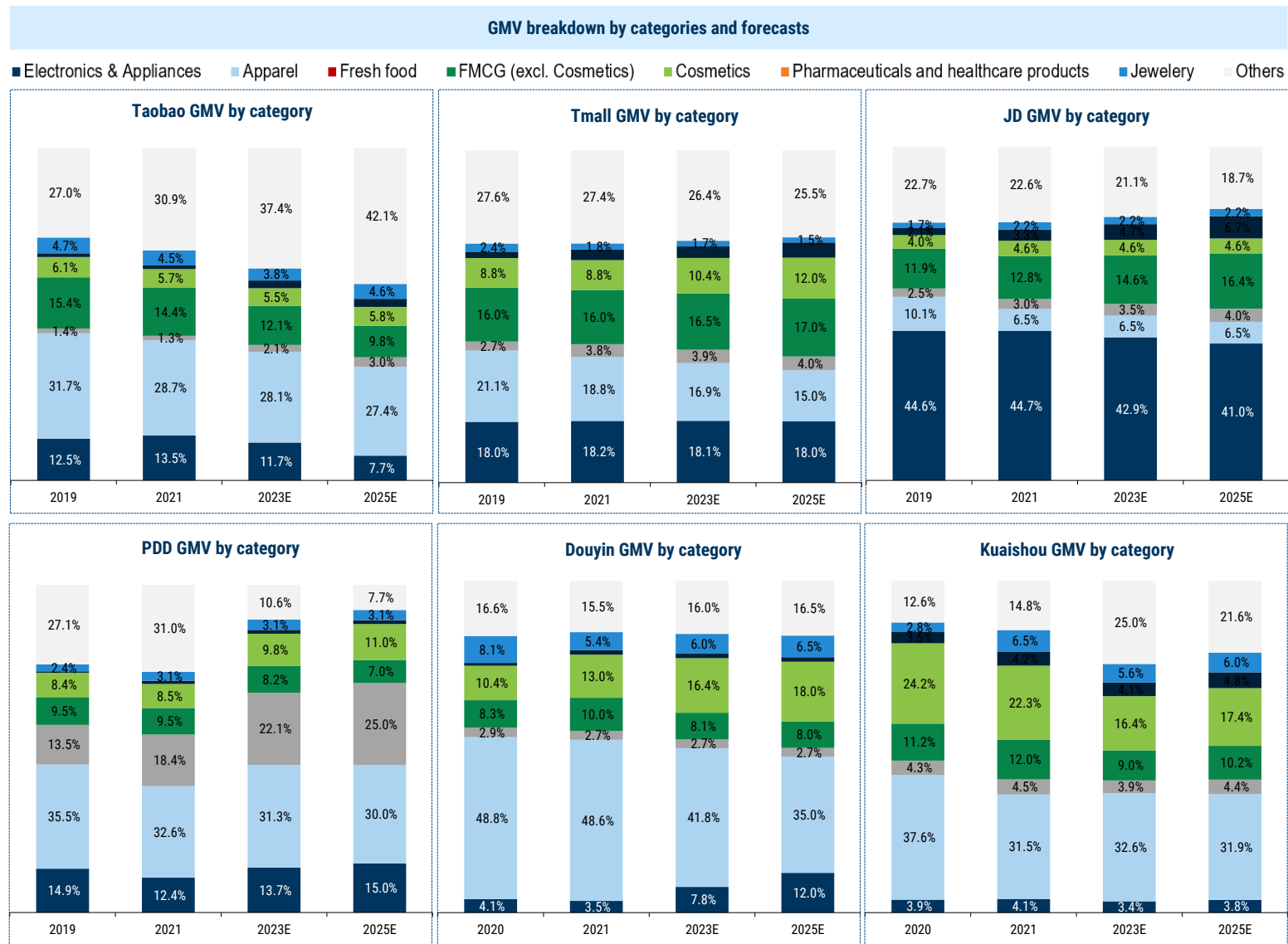
GMV breakdown by categories and forecasts



Note: We calculate Douyin/Bytedance's (both Not Covered) relevant operating metrics (GMV, category mix etc.) by analyzing the industry and companies that we cover, and then extrapolating them to Douyin/Bytedance

Source: Company data, Goldman Sachs Global Investment Research, Sandalwood, Feigua, Burningdata

Exhibit 39: From the lens of categories: We look at traditional eCommerce and livestreaming platforms by categories



Note: We calculate Douyin/Bytedance's (both Not Covered) relevant operating metrics (GMV, category mix etc.) by analyzing the industry and companies that we cover, and then extrapolating them to Douyin/Bytedance

Source: Company data, Goldman Sachs Global Investment Research, Sandalwood, Feigua, BurningData

From the lens of merchants

Regarding technology service fees, SFV players Kuaishou/Douyin are broadly in-line with Tmall, while lower/higher vs. JD/PDD.

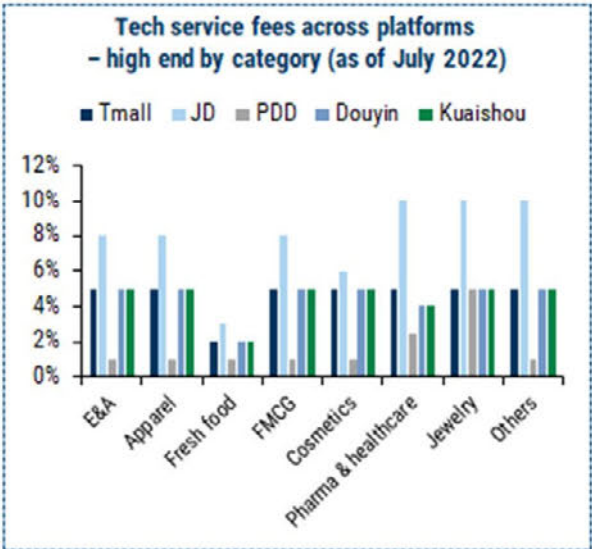
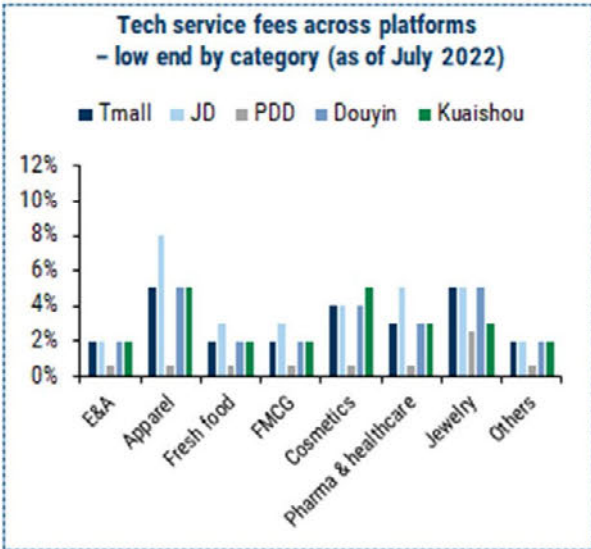
Exhibit 40: From the lens of merchants: How do merchants view SFV players Douyin and Kuaishou as a new channel vs. incumbent platforms

From a traffic distribution perspective, the SFV players serve as a new channel for merchants and have different traffic distribution mechanisms

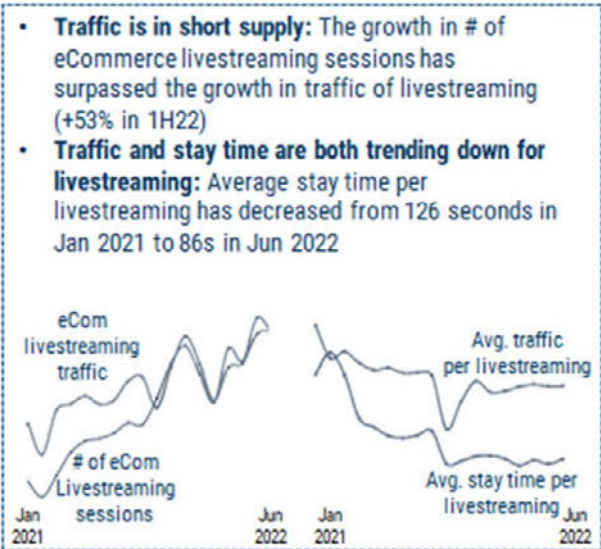
Douyin tends to be viewed by merchants as a centralized traffic distribution platform. Once a merchant reaches a certain level, they can move up the funnel and receive more traffic distributed by Douyin from the public domain. Only c.5% of fans are under the control of the merchant. For the remaining traffic, merchants need to count on the platform to distribute to them based on the quality and 'heat' of their content.

... while Kuaishou tends to be viewed as having less control over traffic, and their traffic value is somehow underestimated. The platform emphasizes more on the private domain and c.30% of fans are under the creators' control (ie the creator of the content), which is similar to WeChat.

From the merchants' cost perspective, the technology service fees on Kuaishou/Douyin vs. Tmall are similar, while lower/higher than JD/PDD...



... and traffic has increasingly trended down

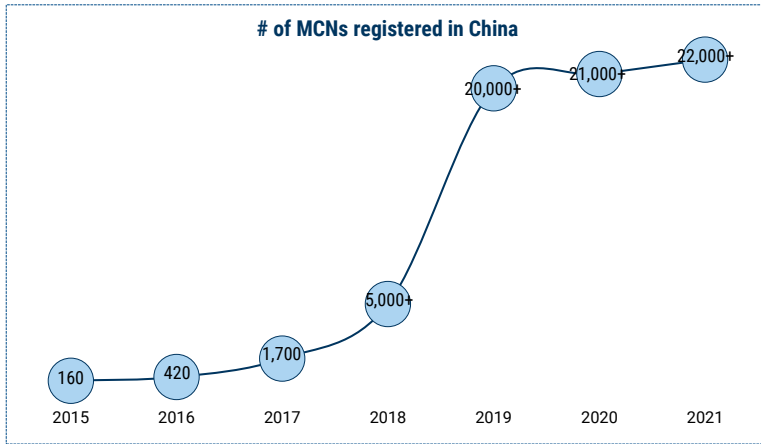


Source: compiled by Goldman Sachs Global Investment Research, Company data, QuestMobile

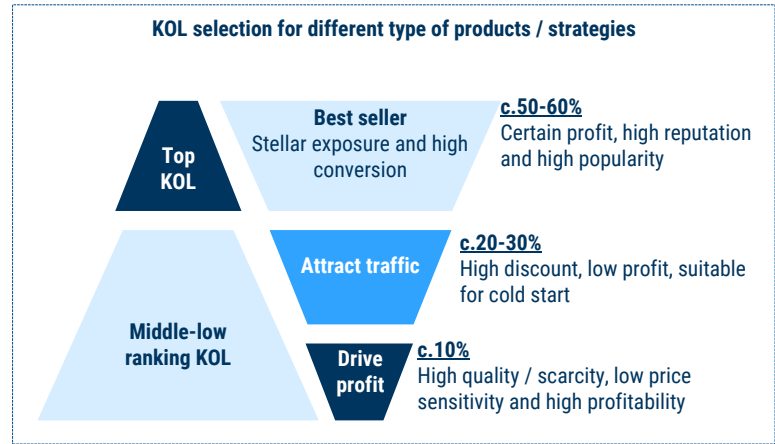
Exhibit 41: From the lens of KOLs: The ecosystem has been well-established

Kuaishou depends more on top KOLs; but looking ahead, merchants' self-broadcast expected to surpass KOL livestreaming due to restrictions on top KOLs

of MCNs has surpassed 22k+ and has been relatively stable

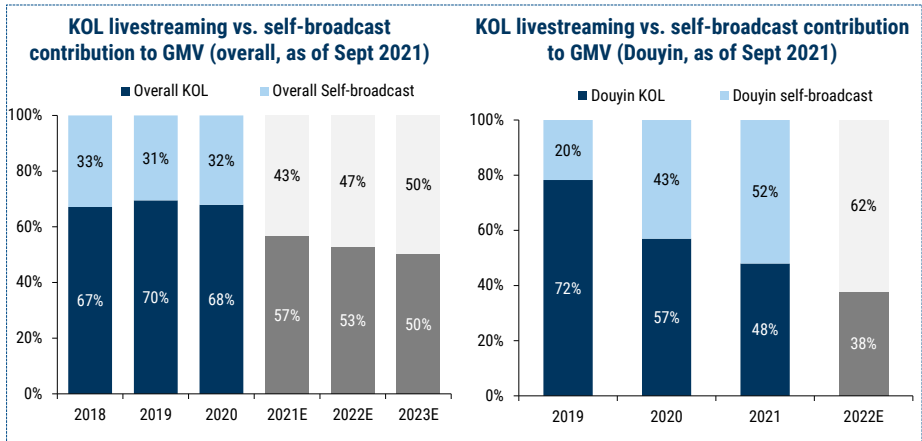
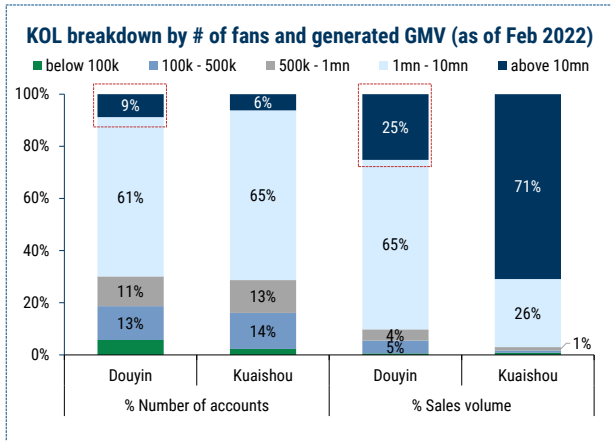


KOL selection depends on the type of goods and the advertising strategy



9% of KOLs in terms of # of fans contributed to 25% sales on Douyin; while only the top 6% of KOLs contributed to 71% sales on Kuaishou

Self-broadcast to surpass KOL livestreaming, and to become mainstream by 2023; Douyin could see a similar trend



Source: Company data, Tianyancha, Topklout, Quest Mobile (as of Feb 2022), iResearch (as of Sept 2021), Goldman Sachs Global Investment Research

Exhibit 42: A case study on "Oriental Selection": What's unique and where is it heading?

Dongfang Zhenxuan, a livestreaming eCommerce platform under Koolearn (1797.HK, Not Covered), was launched in Dec 2021 and went viral in June 2022. It spent nearly 6 months growing its followers from 0 to 1mn, but only less than a week to grow followers to 3.6mn. Its GMV during the 6.18 shopping festival exceeded Rmb300mn (#2 on Douyin), and has reached Rmb2bn GMV over the past 3 months. Dongfang Zhenxuan has accumulated 25mn+ followers and c.5mn members, with 4 channels on Douyin.

How did it go viral?

On Jun 10, a short video clip of Yuhui Dong, a former English teacher at New Oriental and a live streaming host at Dongfang Zhenxuan, hosting a session went popular and his humor and wisdom caught people's attention.

What is unique about Dongfang Zhenxuan?

- High-quality products with agricultural products as its core merchandise
- Differentiated livestreaming content that resonate with audience, i.e. production process, geographical/historical knowledge, Chinese traditional culture
- Relaxing, slower paced livestreaming atmosphere
- Company IP platform backed by the 30-year-old New Oriental brand, with an evolving matrix of livestreaming hosts and channels
- Different revenue and cost structure vs. MCNs/KOLs



Source: Jiemian, ce.cn, Public Information, compiled by Goldman Sachs Global Investment Research

The eCommerce landscape by 2025: Presenting our overall base, bull, bear cases for SFV players

We introduce our scenario analysis for livestreaming penetration, including an assessment of SFV players' shelf-based eCommerce potential. Besides livestreaming penetration scenarios, the other swings to China's eCommerce landscape over the next few years will depend on SFV players' success expanding into shelf-based shopping. Here, we assess their different contribution scenarios, estimating Douyin + Kuaishou could in aggregate command 16%/22%/33% of eCommerce GMV share by 2025E (under our bear/base/bull scenarios), vs 12% in 2021, resulting in incremental share loss from traditional eCommerce players, primarily Alibaba and Vipshop.

Scenarios of SFV players' shelf-based shopping GMV scale (excluding livestreaming):

- **Base case:** Douyin upgraded its eCommerce strategy to **universal interest eCommerce** (“全域兴趣电商” in Chinese) in May 2022, a year after introducing interest eCommerce in Apr 2021. Kuaishou also launched a beta test on shelf eCommerce in August 2022. We estimate Douyin/Kuaishou shelf-based eCommerce to reach 25%/10% of respective total GMV, together accounting for 4% vs. BABA's 36% of industry online GMV in 2025E.
- **Bear case:** We assume an unsuccessful rollout of Douyin Mall, as people go to certain apps for a specific purpose and therefore assume Douyin's shelf-based eCommerce as a % of its GMV to remain flat from 2022E levels at c.13%, with Kuaishou at 5% in 2025E, together accounting for 2% vs. BABA's 38% of industry online GMV in 2025E.
- **Bull case:** We assume very successful progress of SFV players entering traditional eCommerce, gaining further market share from BABA/JD/PDD. We assume 40%/15% of Douyin/Kuaishou's total GMV could come from shelf-based eCommerce, together accounting for 11% vs. BABA's 30% of industry online GMV in 2025E.

(Note: our definition of shelf-based includes mall, search and SFV)

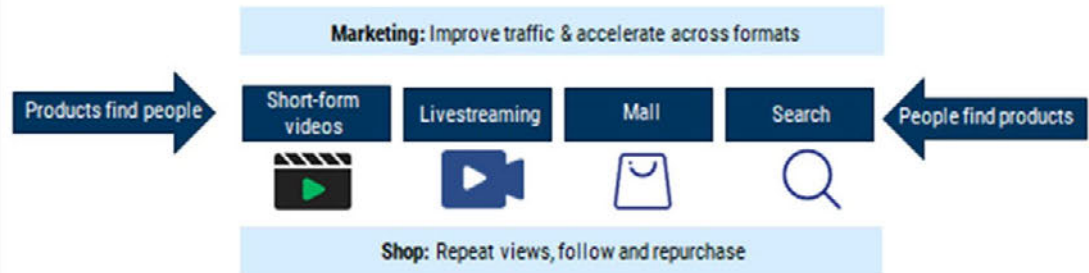
We believe it is a natural move for SFV players to branch into traditional shelf-based eCommerce. Despite livestreaming proving to be an effective format for categories/merchandise of low ASP, non-standardized, visually appealing, shelf-based eCommerce addresses the pain point of a low repurchase rate, penetrating into categories that livestreaming as a format that is not so effective in, and fulfilling users' intended shopping needs. We compare SFV players with traditional eCommerce players across four dimensions: scale, speed, quality and pricing, and believe with the introduction of shelf-based eCommerce, SFV players could further narrow the gaps with the incumbents in terms of customer experience.

Exhibit 43: Kuaishou is beta testing shelf eCommerce in August 2022; Douyin recently upgraded its eCommerce strategy from interest eCommerce to universal interest eCommerce

Kuaishou started beta testing shelf eCommerce in August 2022 and moved the entrance to the top of the banner to improve exposure

In the beta tested versions, Kuaishou moved its shelf eCommerce entrance portal to the Level one entrance of its app in the "front page" tab, and to the forefront of the banner, where users can swipe right immediately after opening the app to enter the eCommerce portal, significantly improving the shelf eCommerce portal's significance and user visibility within the app. Such a move in traffic exposure is demonstrative of Kuaishou's strategic move into shelf eCommerce

- In May 2022, Douyin introduced the concept of **universal interest eCommerce** ("全域兴趣电商" in Chinese), a year after it first introduced interest eCommerce in Apr 2021
- All-field interest eCommerce is **search, shelf-based** (people find products or "人找货" in Chinese) in addition to **SFV and livestreaming content** (products find people or "货找人" in Chinese)
- Search behavior with intention +217% yoy, Douyin Shop views +279%, Douyin Mall GMV x6 this year



Douyin launched Douyin Mall, and a series of other businesses that address users' diversified needs



- In Aug 2022, Douyin divided its eCommerce operations into: (1) content-based, and (2) shelf-based
- Douyin believes its SFV and livestreaming businesses, which help cultivate users' shopping habits, have already matured. Going forward, it will focus more on improving merchants' operations, opening the channel between Douyin Mall and Douyin Shops, to facilitate more transactions and improve repurchase
- Douyin is also actively promoting eCommerce memberships, repurchase coupons, etc to help merchants gain private traffic



Source: Compiled by Goldman Sachs Global Investment Research, Dianshangbao Pro, SHBY, Douyin app

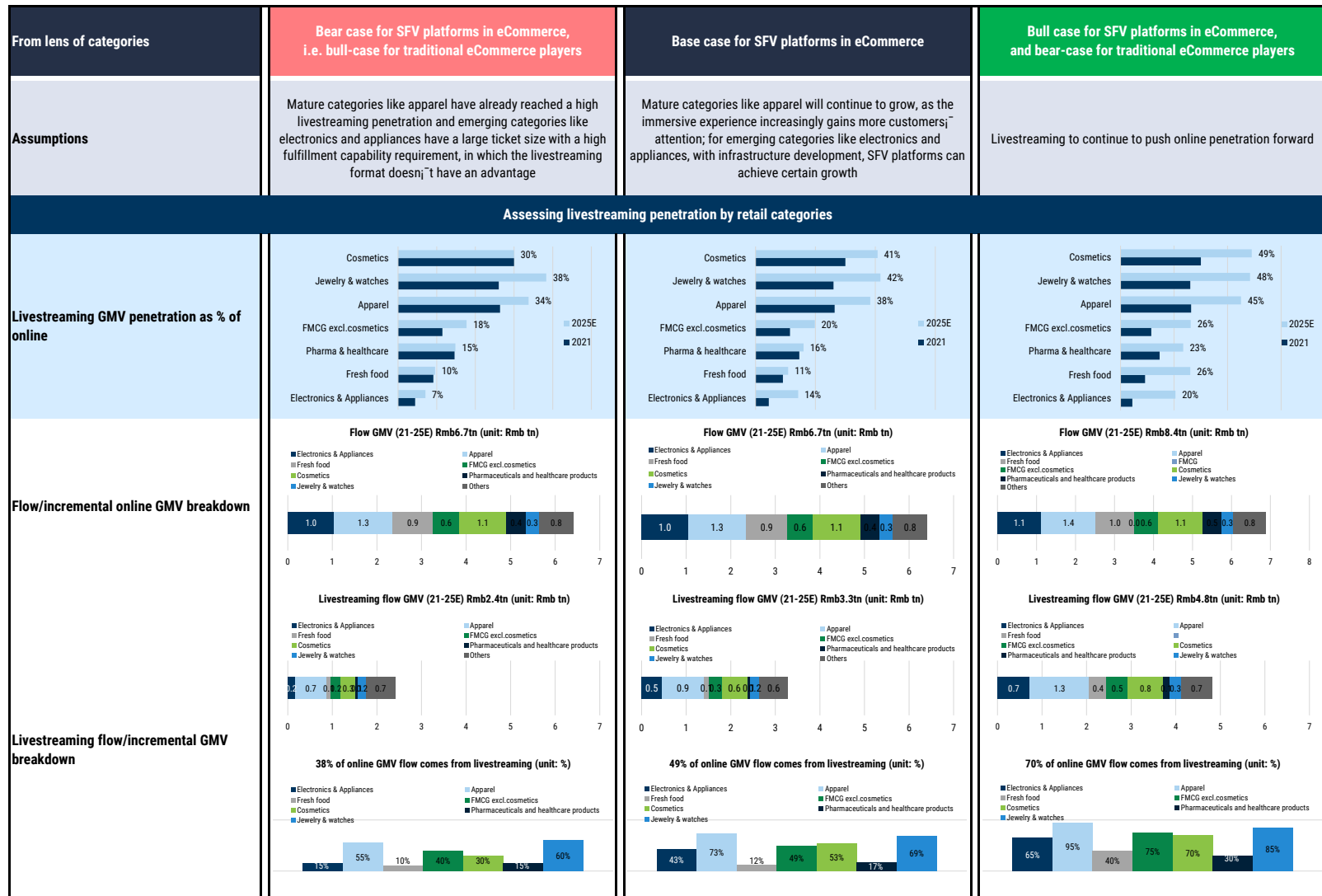
Exhibit 44: Bull/base/bear case for SFV players' eCommerce market share

	Bear-case for SFV platforms in eCommerce, i.e. bull-case for traditional eCommerce players	Base-case for SFV platforms in eCommerce	Bull-case for SFV platforms in eCommerce, and bear-case for traditional eCommerce players
Assumptions	SFV platforms' GMV growth quickly decelerates, traditional eCommerce platforms (BABA/JD/PDD) are able to sustain a healthy market share of 83% vs. 88% in 2021	SFV platforms' GMV growth remains robust, traditional eCommerce platforms (BABA/JD/PDD) lose market share to 77% vs. 88% in 2021	SFV platforms becomes successful in shelf eCommerce, traditional eCommerce platforms (BABA/JD/PDD) lose more market share, to 67% vs. 88% in 2021
Total online retail goods GMV by 2025E (Rmb tn)	from Rmb16tn (2021) → Rmb22tn	from Rmb16tn (2021) → Rmb22tn	from Rmb16tn (2021) → Rmb24tn
2021-25E online GMV CAGR	21-25E CAGR 9%	21-25E CAGR 9%	21-25E CAGR 11%
Implied online retail goods penetration (on NBS definition)	from 31% (2021) → 36%	from 31% (2021) → 36%	from 31% (2021) → 39%
2025E Gross GMV market share (Rmb tn)			
Livestreaming sizing (SFV platforms, Taobao Live, Tencent Video Account and other traditional platforms' livestreaming GMV)			
Livestreaming ceiling (Rmb tn)	Rmb5tn	Rmb6tn	Rmb7tn
Assumptions	we expect some short-term declines in a few categories over 2023 even possible when China re-opens, then flattens out from 2024	we expect some further penetration in key categories	we expect further penetration in all the categories
Livestreaming GMV % total online by 2025E vs. 2022E of 19%	from 15% (2021) → 21%	from 15% (2021) → 25%	from 15% (2021) → 30%
2025E Livestreaming GMV breakdown (Rmb tn)			
Assessing SFV platforms' shelf eCommerce potentials			
2025E SFV platforms' shelf eCommerce market (Rmb tn)	Rmb0.4tn	Rmb1.0tn	Rmb2.6tn
2025E SFV platforms' shelf eCommerce share % as of online sales	2% vs. BABA 2025E market share of 38%	4% vs. BABA 2025E market share of 36%	11% vs. BABA 2025E market share of 30%
2025E Douyin's shelf-based eCommerce as % of Douyin GMV	13% broadly flat from 2022E levels	25%	40%
2025E Kuaishou's shelf-based eCommerce as % of Kuaishou GMV	5%	10%	15%

Note: We calculate Douyin/Bytedance's (both Not Covered) relevant operating metrics (GMV, category mix, etc.) by analyzing the industry and companies that we cover, and then extrapolating them to Douyin/Bytedance

Source: Company data, Goldman Sachs Global Investment Research

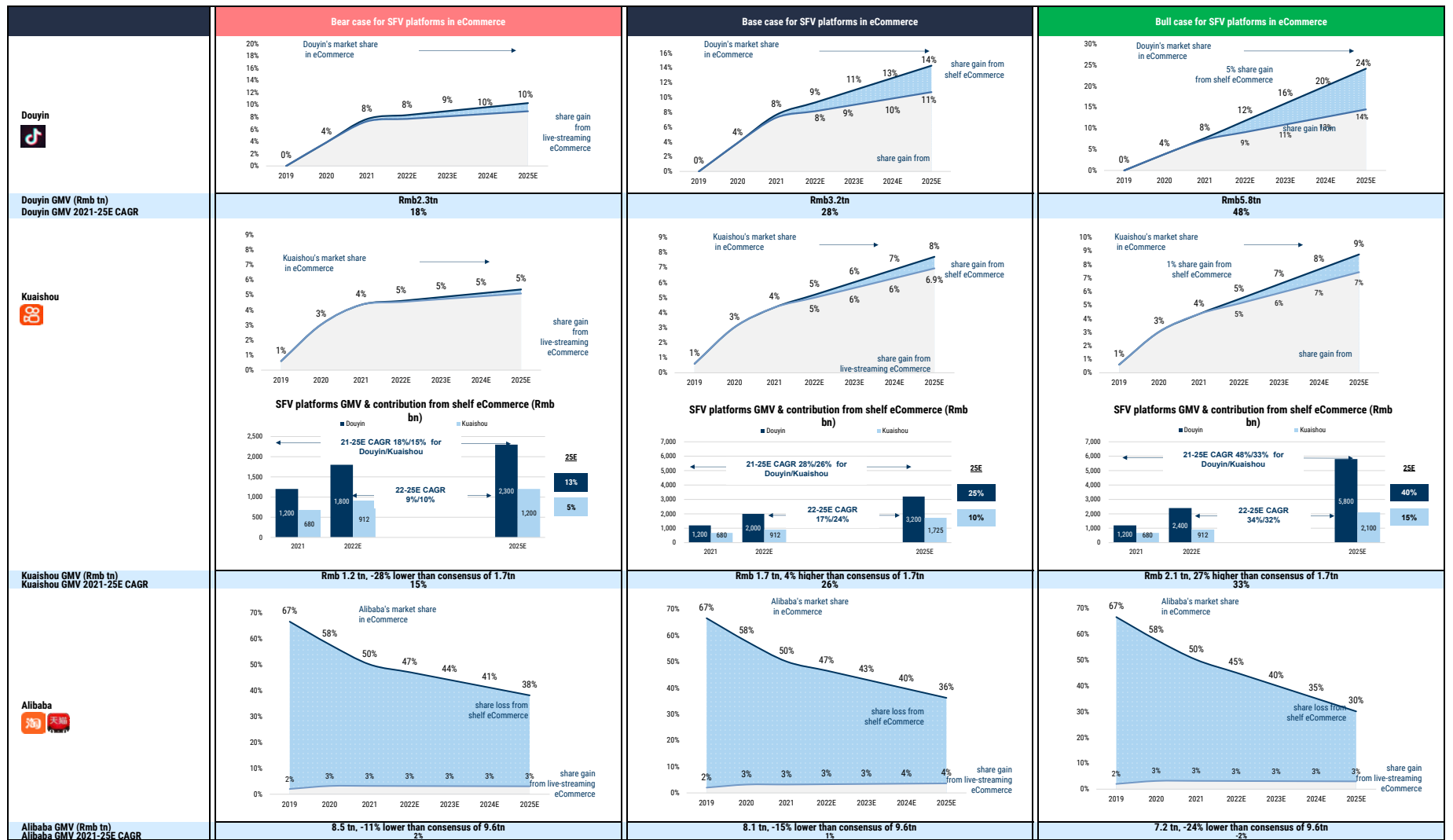
Exhibit 45: Bull/base/bear case for China SFV players by category



Note: We calculate Douyin/Bytedance's (Both Not Covered) relevant operating metrics (GMV, category mix etc.) by analyzing the industry and companies that we cover, and then extrapolating them to Douyin/Bytedance

Source: Company data, Goldman Sachs Global Investment Research

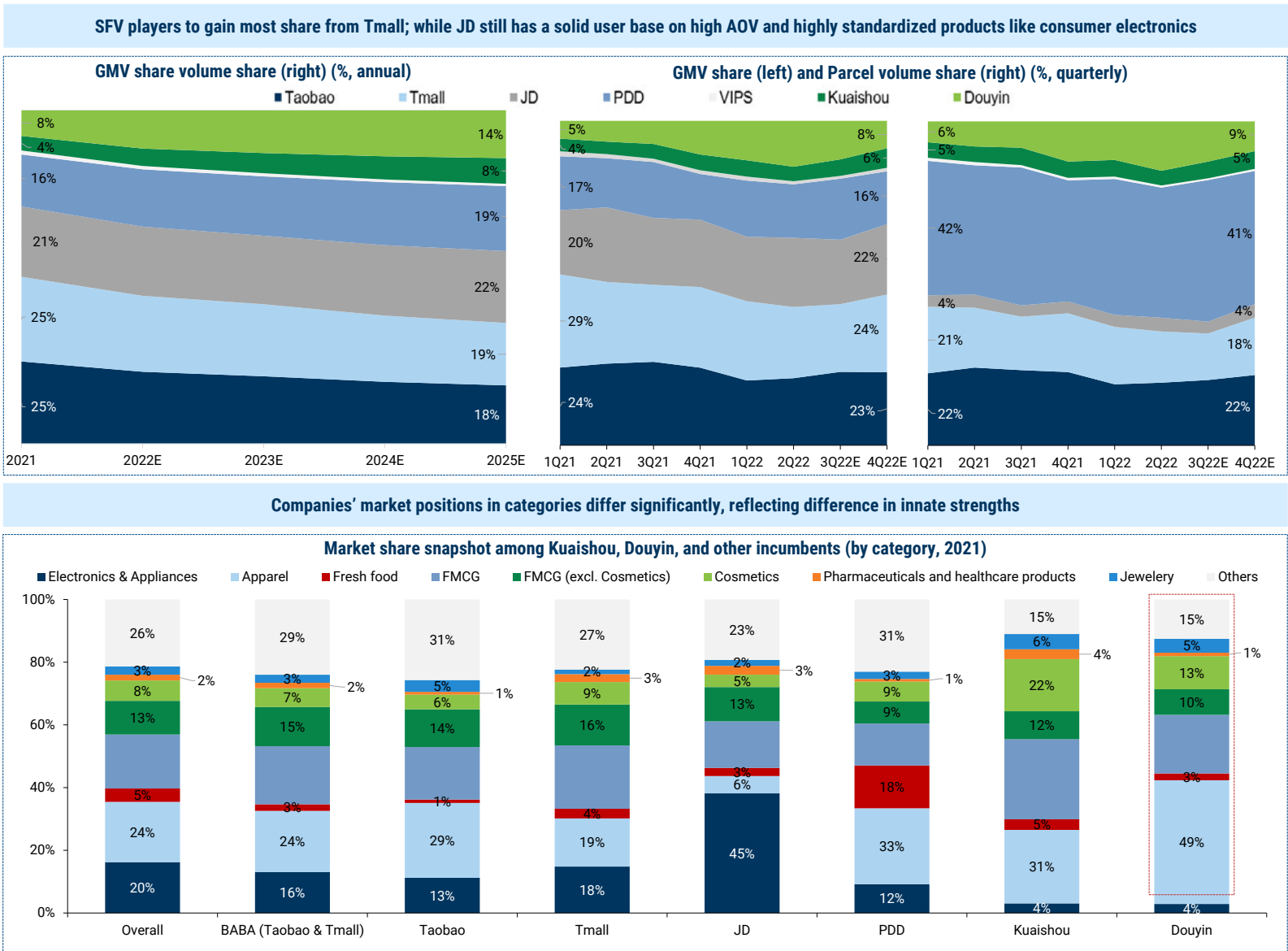
Exhibit 46: Bull/base/bear case for SFV players' eCommerce market share



Note: We calculate Douyin/Bytedance's (Both Not Covered) relevant operating metrics (GMV, category mix etc.) by analyzing the industry and companies that we cover, and then extrapolating them to Douyin/Bytedance

Source: Goldman Sachs Global Investment Research

Exhibit 47: From the lens of categories: We also observe the evolution of penetration and the landscape



Source: Goldman Sachs Global Investment Research, Company data, NBS, SPB

What's next after eCommerce goods?

As previously highlighted in our Navigating China Internet: Framing the debates report, we believe the online shift has largely run its course in China, although agriculture products, supermarket, pharmaceuticals, local services are still relatively under-penetrated. In particular, we are seeing SFV players such as Kuaishou into jobs/recruitment and Douyin expanding into local services.

Jobs/recruitment: Kuaishou launched Kwai Recruitment (“快招工” in Chinese) in Jan 2022, adopting a video-based recruitment process targeting blue-collar workers and college graduates. Unlike traditional recruitment platforms, applicants are not required to submit their resumes and only need to leave their contact details to complete an application, a better fit for blue-collar workers. As of 1Q22, Kwai Recruitment **MAU had exceeded 100mn**, with peak daily volume of resumes received during Lunar New Year (LNY) of 150k. Participating companies include FOXCONN, Gree Electric, JD Logistics, Meituan Food Delivery, Cainiao, etc, and job positions range from management and technology to general workers.

Local services: Douyin added an “inter-city” (“同城” in Chinese) tab at the top of the app, alongside Douyin Mall and recommendation tabs, implying the strategic priority of this segment within the app. Douyin first entered local services vertical as early as 2018, and then switched to direct operation in 23 higher-tier cities and has been running a franchise model in the other high-tier cities since early 2021, a strategy that is similar to Meituan. In Mar 2022, Douyin launched Douyin Laike, an app dedicated to merchants offering local services. The number of MAU on Douyin Laike has exceeded Koubei Merchant to reach 1.0mn in July 2022, and is now 1/3 of Meituan Merchant’s scale. According to 36kr, Douyin local services GMV reportedly reached **c.Rmb22bn in 1H22**, surpassing the company’s 2021 full-year target of Rmb20bn. Per the company, the business is now targeting **FY22 GMV of Rmb50bn**.

Other verticals: In addition to local services and jobs/recruitment, SFV players continue to explore other verticals, including gaming, real estate, etc (see [Exhibit 50](#)).

Exhibit 48: In addition to eCommerce, SFV players have also entered verticals such as local services, recruitment, where online penetration still has ample room to improve
Internet vertical TAM house

CHINA												
Industry (Rmb bn)	Consumer Retail	Restaurant	Local Services ex.restaurant	Travel	Entertainment and Media				Enterprise IT spend	Real Estate	Recruitment	TOTAL (China)
					Ads (ex.e- commerce)	Game	Subs & VAS	Live streaming				
2021												
Total industry TAM	39,359	4,702	7,040	3,502	1,507				903	35,936	204	93,152
Online market size*	11,069	1,153	958	1,793	516	412	81	159	279	3,853	72	19,695
% Online penetration	28%	25%	14%	51%	77%				31%	11%	36%	21%
Major players	Alibaba, JD, PDD	Meituan, Ele.me	Meituan, DIDI (car hailing)	Trip.com, Tongcheng, Fliggy	Tencent, ByteDance, Kuaishou	Tencent, NetEase	Tencent, IQiyi, TME	Bytedance, Kuaishou	Alibaba Cloud, Tencent Cloud, Huawei Cloud, Baidu Cloud, Kingsoft Cloud	Beike, Anjuke, Fang.com, 5i5j, Fangduoduo	BOSS Zhipin, 58.com, 51job, Zhaopin, Wise Talent	
% Take rate**	2-5%	5-6%	2-15% for in-store 15-20% for car hailing	7-10% for hotels 2-5% for air ticketings						2-3%		
2024E												
Industry TAM	46,206	5,688	11,098	4,757	1,810				1,331	37,535	362	108,786
Online market size*	15,001	1,961	1,684	2,694	797	565	116	166	732	4,773	168	27,809
% Online penetration	32%	34%	15%	57%	91%				55%	13%	46%	26%
Online market size CAGR (2021-24E)	11%	19%	21%	15%	16%	11%	13%	2%	38%	7%	18%	12%

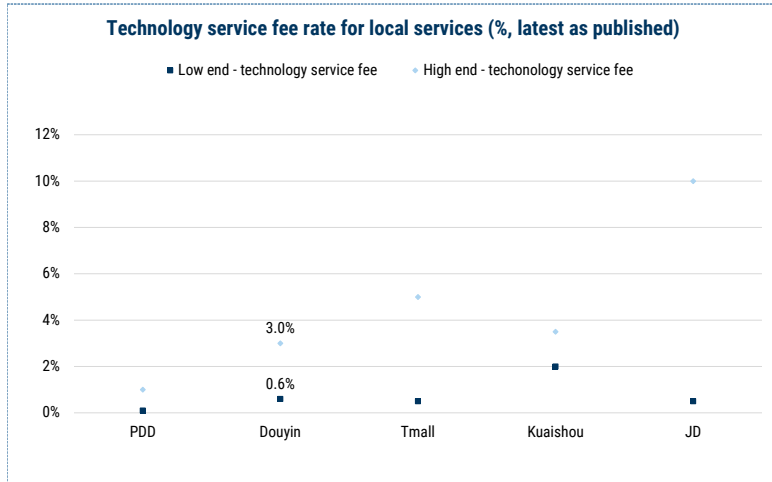
* Online Real Estate online market size = Beike total GTV; Online Enterprise IT spending online market size = China cloud industry size (public+private)

** China online game market size includes Chinese game publishers' overseas revenue

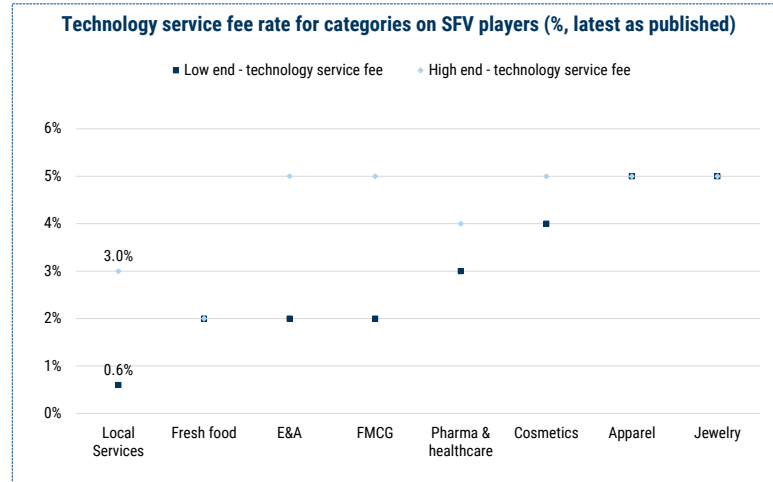
Source: QuestMobile, CIC, Gartner, NBS, PwC, Company data, Goldman Sachs Global Investment Research

Exhibit 49: Local services - Douyin entered the market as early as 2018, and recently partnered with Ele.me, and Kuaishou partnered with Meituan since late 2021, and we see fast-growing merchant activities (as of July, 2022)

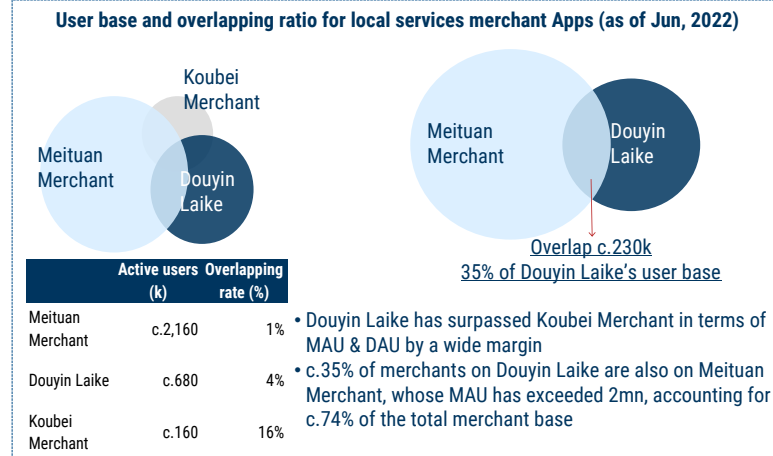
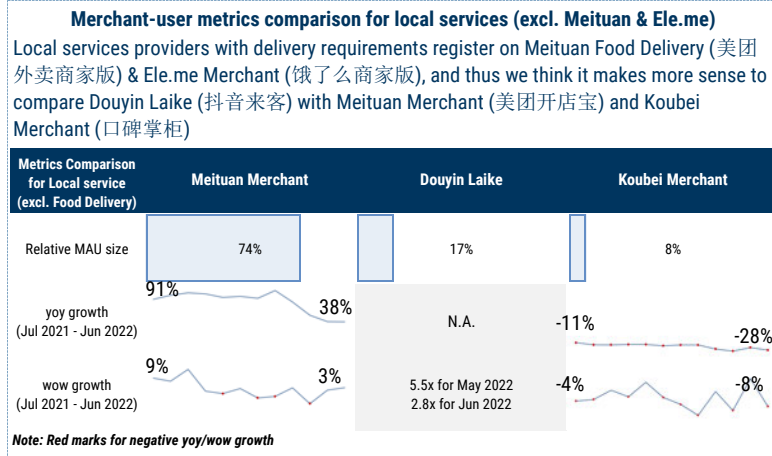
Based on an avg of low-/high-end tech service fees, PDD/Douyin/Kauishou have the lowest charge for local services (on avg)...



... and local services typically have lower commissions on SFV players

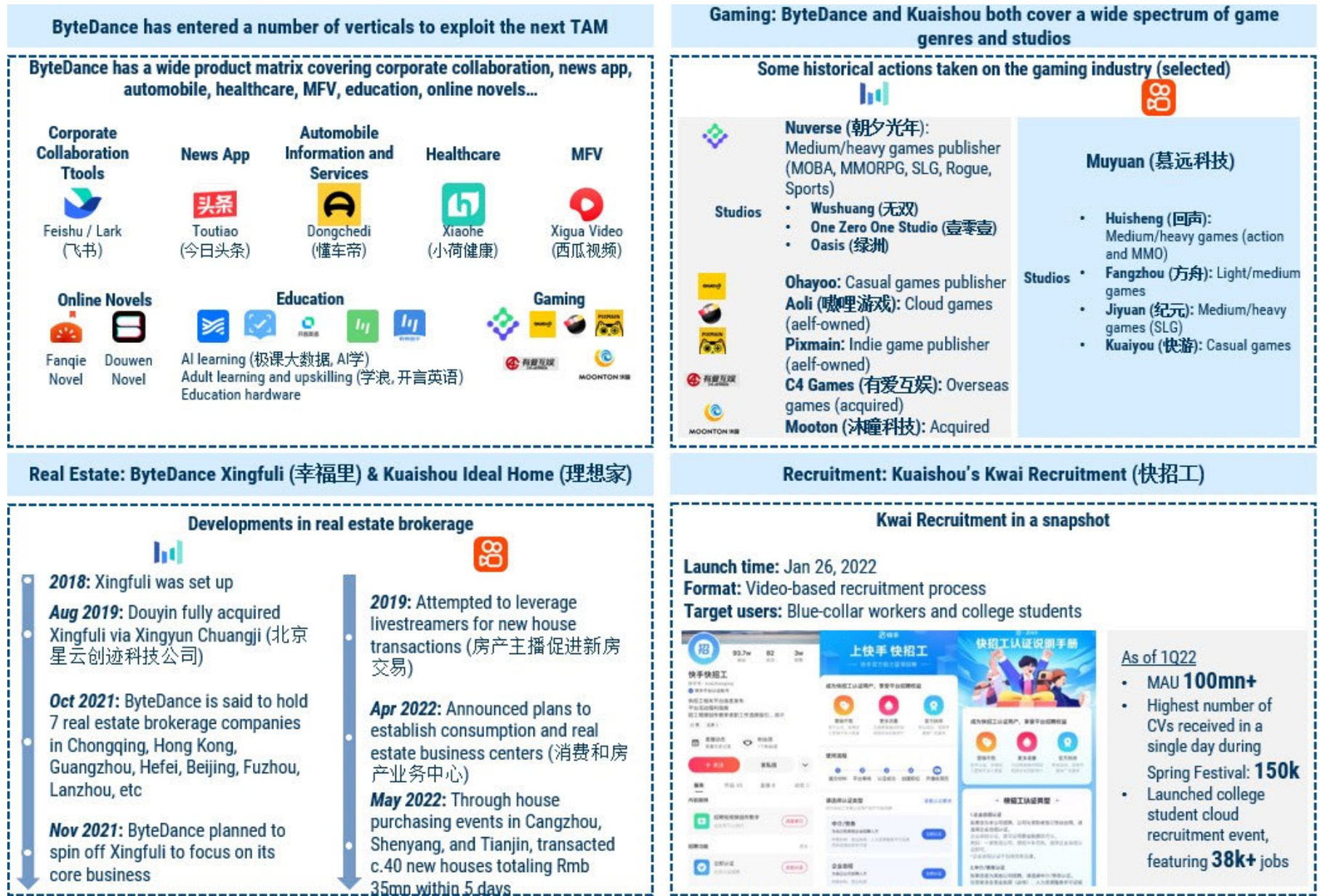


Among local services providers, we compare Douyin Laike app with Meituan Merchant & Koubei Merchant apps



Source: Company data, QuestMobile, compiled by Goldman Sachs Global Investment Research

Exhibit 50: SFV players have also been testing the water in various verticals, including real estate, gaming, recruitment



Source: Company data, Sina, Sohu, Toutiao, compiled by Goldman Sachs Global Investment Research

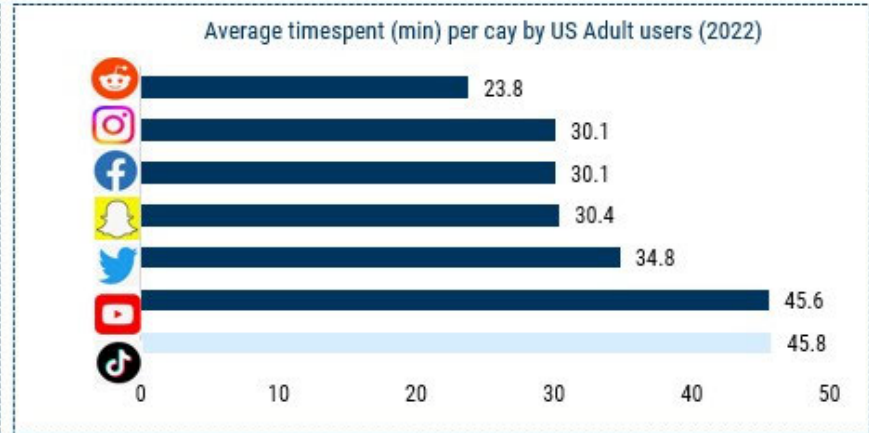
The rise of TikTok: Lessons from China and potential implications

Exhibit 51: What could be next: Overseas

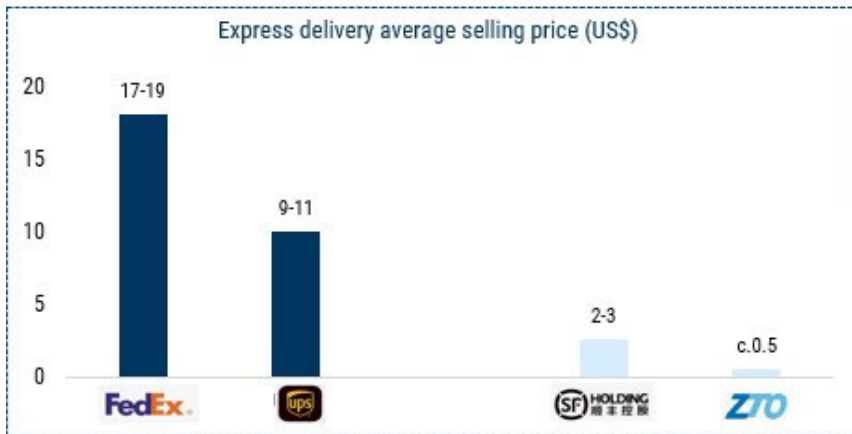
Chinese consumers are more used to online shopping vs. the majority of other countries



TikTok is still in its early days with timespent at only c.46 min per day, vs. 120+ min spent on SFV in China



The significantly lower logistics costs in China vs. the US leads to a better online shopping experience and therefore higher online penetration (as of 2021)



Overseas Internet giants have been testing the water, by either launching its own livestreaming features or collaborating with 3rd party platforms

- Facebook is shutting down its live shopping feature on October 1 to shift its focus to Reels, Aug 2022
- Amazon seems to be working on a TikTok-like vertical video feed for its shopping app, Aug 2022
- YouTube just announced a partnership with Shopify. Now, creators can link to products from their Shopify stores directly in their livestreams on YouTube, Aug 2022
- Walmart is delving further into livestreaming and social commerce with an extended partnership with Talkshoplive, Mar 2022

Source: Euromonitor, eMarketer, Company data, Sina, Goldman Sachs Global Investment Research

Exhibit 52: SFV players' development timeline in overseas



Source: 36Kr, Sina, Company data, Goldman Sachs Global Investment Research

Risks outstanding and regulations

Exhibit 61: We notice that teenager protection, tipping, eCommerce/marketing are the regulatory focus

Date	Subject	Name	Details
Aug 2022	Algorithm	Provisions on the Management of Algorithmic Recommendations in Internet Information Services 互联网信息服务算法推荐管理规定	<ul style="list-style-type: none"> Provisions became effective on Mar 1, 2022, regulating algorithmic recommendation to protect users' interests and rights In Aug 2022, CAC (Cyberspace Administration of China) published a list of companies, including Douyin, Kuaishou, Meituan, etc, disclosing their algorithmic recommendation details of the apps
Dec 2021	Teenager; Content; User identification	Opinions on Strengthening the Protection of Minors in the Online Cultural Market 关于加强网络文化市场未成年人保护工作的意见	<ul style="list-style-type: none"> Propose to explore the establishment of standards for review and judgment of unsuitable content for minors Is strictly forbidden to use "celebrity children 网红儿童" for profit Effectively regulate "money rewards 金钱打赏" and not to induce minors Strengthen user identification Require personal information to be strictly protected Emphasize that harmful content must be blocked Strengthen industry supervision
Aug 2021	eCommerce / Marketing	Standards for Management and Services of livestreaming eCommerce platforms 直播电子商务平台管理与服务规范	<ul style="list-style-type: none"> Define the requirements for livestreaming marketing platforms, livestreaming room, and eCommerce platforms in livestreaming eCommerce livestreaming marketing platforms - responsible for the access and exit of merchants and livestreamers, verification of product information, users' and livestreamers' account management and services The platforms should also conform to the requirements for consumers' privacy protection, transaction and after-sales services, and other matters in the protection of consumers' rights
Jul 2021	MCN; Tipping	Guidelines for MCNs 网络表演经纪机构管理办法	<ul style="list-style-type: none"> MCNs are not allowed to induce users to tip by self-brushing gifts (带头打赏, a trick for MCN to give gifts to their own livestreamers) MCNs are not allowed to hype a livestreamer's income by reward ranking or exaggerated claims (虚假宣传) livestreamers must not induce users to tip by special treatment, verbal stimulation, or promised rebates
Feb 2021	Teenager; Content	Strengthening the Supervision of livestreaming Services 关于加强网络直播规范管理工作的指导意见	<ul style="list-style-type: none"> Teenager protection – minors <16 are not allowed to register the livestreaming account; 16-18 need to ask for their guardians' permission of registration Platform supervision - Online gambling and other inappropriate activities are forbidden; and users are not allowed to compete on wealth show-off
Nov 2020	Marketing	Strengthening the Supervision of livestreaming Marketing Activities 关于加强网络直播营销活动监管的指导意见	<ul style="list-style-type: none"> Online platforms and upper stream commodity suppliers should have specified legal responsibilities (压实有关主体的法律责任) Regulate the scope of marketing of goods or services (规范商品或服务营销范围) Investigate 8 main categories of illegal conduct in livestreaming marketing: eCommerce violations, infringement of consumer rights and interests, unfair competition, low-quality products, infringement of intellectual property, infringement of food safety, advertising violations, and price violation
Nov 2020	livestreamers; Platform	Strengthening the Management of Online Show Live Broadcast and livestreaming eCommerce platforms 关于加强网络秀场直播和电商直播管理的通知	<ul style="list-style-type: none"> The online show live platforms and livestreaming eCommerce platforms should give priority to social benefits, actively spreading positive energy (正能量), i.e. healthy content Focus on improving the management system, responsibility system, and content security system Implement the principle of synchronizing management and construction (管建同步) livestreaming and livestreamers should be clearly labeled based on content (music, dance, singing, fitness, or games) The platforms should establish a rating system (评分档案) for the livestreamers and link the rating to the recommendation and promotion system The platforms should implement real-name management for their hosts and users who are keen on rewarding hosts The platforms must follow the relevant regulation for online audio-visual program service (视听内容服务) management The platform shall conduct qualification review and real-name management for merchants
Sept 2018	Intellectual property	National Copyright Administration (国家版权局) talked with 15 SFV platforms (Douyin, Kuaishou, Xigua, Huoshan, Meipai, Miaopai, Weishi, Bilibili, Tudou, etc.) to discuss efforts in combating piracy	
Jul 2018	General supervision	19 video Apps were removed from Android App Store for 30 days from 26, July to 25, August, during which period users cannot download the Apps. Apps include Bilibili, Sofa Video (沙发视频), Miaopai, Bobo Video (波波视频), 56 Video (56视频), SEE U, Onion Video (洋葱视频), 2 or 3 minutes (两三分), Fani Video (发你视频), etc.	
Apr 2018	Teenager; Content	CAC talked with Kuaishou and Huoshan, requiring the platforms to enhance management of the under-aged account in spreading inappropriate content which violate social values. The platforms were required to temporarily stop channel updates for 5 days and forbid teenagers under 18 to be livestreamers	

Source: Sina, Sohu, compiled by Goldman Sachs Global Investment Research

Exhibit 62: ...as well as regulations regarding livestreaming/SFV overseas

The US on bans		
Date	Subject	Details
Feb 2019	Data privacy	• TikTok paid US \$5.7m to the US Federal Trade Commission over Musical.ly's illegal collection of personal information from minors
Late 2019	M&A	• The Committee on Foreign Investment in the US begins reviewing TikTok's M&A with Musical.ly
Aug 2020	Bans	• The US banned transactions with ByteDance, and urged TikTok to be sold to US buyers
Nov 2020	Bans suspended	• Trump's orders were suspended
Jun 2021	Bans revoked	• Previous orders were revoked by Biden and replaced with one that calls for a broader review of foreign-controlled Apps
India on bans		
Date	Subject	Details
Apr 2019	Illegal content	• Tamil Nadu court asked the Indian federal government to ban TikTok for encouraging pornography – leading to a 2-week temporary ban
Jun 2020	Bans	• TikTok and Kwai (Kuaishou's overseas version) banned by the Indian government together with 57 other Chinese Apps (also including Likee, WeChat, QQ, Meitu, and etc.), citing security concerns. The ban came after the border conflict
Jan 2021	Bans	• India's ban on Chinese Apps became permanent
The EU on data protection regulations		
Date	Subject	Details
Jun 2020	Data privacy	• EU began to scrutinize TikTok's practices after the Netherlands' Data Protection Commission decided to open an investigation into the company's policies to protect children's data
Apr 2021	Data privacy	• British lawyers claimed that TikTok takes children's personal information, including phone numbers, videos, exact location and biometric data, without sufficient warning, transparency or the necessary consent required
Jul 2021	Data privacy	• Dutch Data Protection Authority (Dutch DPA) announced a EUR 750k fine on TikTok for violating the privacy of young children namely for the company's alleged lack of transparency
Sept 2021	Data privacy	• Ireland investigated TikTok on children's data handling and personal data transfer
Sept 2021	Data privacy	• A Dutch non-profit filed a lawsuit claiming TikTok violated European privacy rules by gathering and auctioning sensitive data, and asked an Amsterdam court to require TikTok to pay EUR6bn in damages

Source: Sina, Sohu, compiled by Goldman Sachs Global Investment Research

Disclosure Appendix

Reg AC

We, Ronald Keung, CFA, Lincoln Kong, CFA, Lynn Li, Steve Qiu and Timothy Zhao, hereby certify that all of the views expressed in this report accurately reflect our personal views about the subject company or companies and its or their securities. We also certify that no part of our compensation was, is or will be, directly or indirectly, related to the specific recommendations or views expressed in this report.

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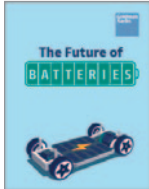
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MINDCRAFT: OUR THEMATIC DEEP DIVES

The Future of Batteries



Navigating China Internet



China Agriculture



China Regulation



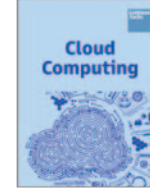
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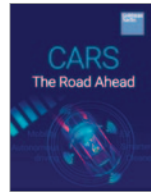
5G: From Lab to Launchpad



Climate Change



Cars: the road ahead



ESG Sector Roadmaps



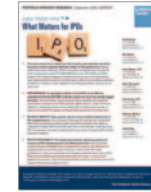
The Rise of Renewables



EV battery metal recycling



What Matters for IPOs



Top of Mind



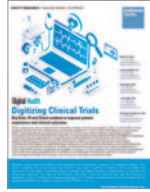
The Green Technology Cycle



The Genome Revolution



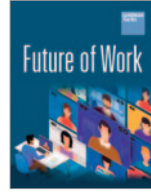
Digital Health



Sustainable ESG Investing



Future of Work



Drones



Space



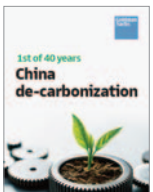
ESG



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China de-carbonization



Age of Automation



Japan Green Consumer



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