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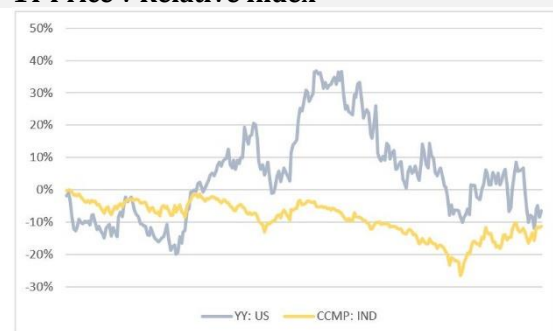
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Basic Information

Last Closed Price	US\$62.79
12M Target Price	US\$83.18
+/- Potential	+32.5%
Bloomberg Ticker	YY US
GICS Sector	Communications
GICS Sub-Industry	Internet Media

1Y Price v Relative Index



Company Description

YY Inc., based in China, is a company offering live streaming platforms and other applications such as messaging and short-form videos. Its operations are mainly based in China and has recently entered the international market.

Key Financials

Market Cap	5.23B
Basic Shares O/S	57.6M
Net Margin	0.7%
EPS 2018	USD \$0.18
52-Wk High-Low	USD\$51.00 - USD\$88.85
Fiscal Year End	31-Dec-2018

(\$ M)	FY17A	FY18A	FY19E	FY20E
Revenue	12595	15764	19820	35116
Gr Rate (%)	41.3	36.0	25.7	77.2
ROE	22.3	9.7	9.8	12.9
ROA	17.3	8.2	7.9	9.4

Key Executives

David Xueling Li	Chief Executive Officer
Bing Jin	Chief Financial Officer

We are initiating coverage of YY Inc. with a BUY rating and a USD\$83.18 12M price target.

2Q19 Earnings Highlights

- Revenue increased 66.8% YoY to RMB 6295.2 million with live streaming contributing 94.08%.
- Net income was RMB42.1 million, compared with a net loss of RMB99.9 million in the corresponding period of 2018. Net margin was 0.7%, and (2.6%) in the corresponding period in 2018.
- Gross margin dropped to 33.7% from 38.7% in 2Q2018
- ARPU increased to RMB525.78 from 2Q18's RMB 515.90 for YY and Huya combined.
- Number of paying users for YY increased 19.1% YoY to 4.2 million; Paying users for Huya increased 46.7% YoY to 4.9 million.
- 3Q19 guidance expects revenue between RMB6.57 billion to RMB6.77 billion, a YoY growth of 60.2% to 65.1%

Investment Thesis

- YY's recent acquisition of Bigo (completed in 2Q19) confers on it the key competitive advantage of superior content regulation over its competitors. This would allow it to secure long-term growth of revenue and aid in its penetration of overseas markets
- YY is likely to successfully expand into key markets overseas and establish a dominant position as a market leader in those markets, sustaining the long-term growth of its revenue
- As business segments reach the end of their user acquisition stage, the largely untapped user base presents unrealised revenue growth potential enabling a long-term increase in ARPU
- Likee's competitive edge is likely to be its ability to successfully manage its content offerings. This would allow Likee to effectively beat out competition by avoiding the detriments of regulations.

Catalysts

- Likee has recently announced a collaboration with Fox Star Studios to promote a movie 'Chhichhore' which has been released in September 2019. This could possibly boost MAU for 4Q19 past estimates, sending the YY's share price up as it attracts users.
- Improving margin due to lowered costs: possible lowering of broadcaster-sharing fees in light of Tencent having become a major shareholder of both Huya and its main rival, Douyu. As growing business segments (Hago, Bigo) mature, economies of scale will also contribute to lowered costs.

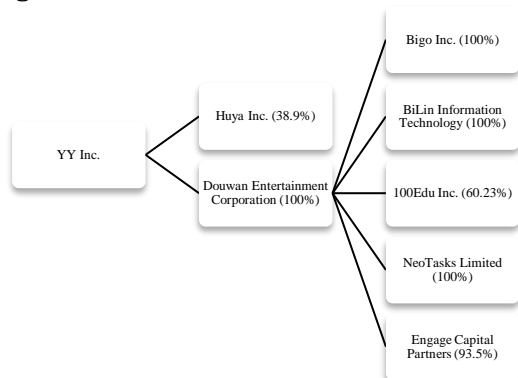
Valuations

Our 12M price target from date of coverage is **\$83.18**. Valuation was derived through DCF model, using an Exit Multiple Method and a Terminal Growth Method as a sanity check. We also adopted relative valuation to obtain a sensing as intrinsic value of growth stock like YY might be hard to capture. Our target price falls within the relative valuations as well as the street's estimate.

Investment Risks

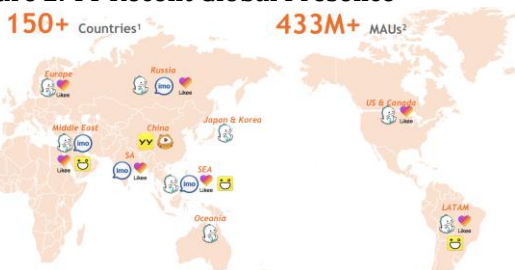
- Tightening of regulations of the livestreaming industry would hurt YY's revenue growth, significant portion of revenue is from China.
- Loss of content creators would severely limit YY's ability to generate revenue seen from migration of popular content creators from Douyu to Huya
- Slowing domestic growth may hurt YY's core business as Chinese citizens gain less disposable income to spend on entertainment

Figure 1. YY Inc. Business Structure



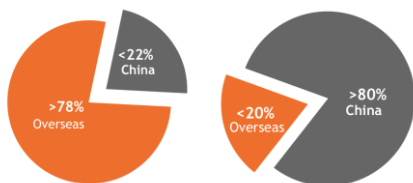
Source: YY

Figure 2. YY Recent Global Presence



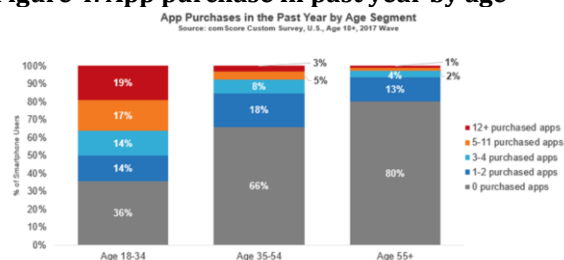
Source: YY Aug. 2019 Presentation

Figure 3. Worldwide % of users (left), Worldwide % of revenue (right)



Source: YY Aug. 2019 Presentation

Figure 4. App purchase in past year by age



Source: com Score customer survey

Figure 5. User interface of YY Live and Huya



Company Overview

YY Inc. is a Chinese based major video sharing, and live streaming company. Their application portfolio includes YY Live, Huya, which are focused on the Chinese domestic market, and Bigo, acquired this year, includes Bigo Live, Likee, and IMO which focuses on the international market.

YY Live, Huya, and Bigo Live are YY's live streaming platforms worldwide. YY Live offers more talent performance and socializing scenes while Huya is more centralized on live sports streaming. Bigo Live is the international version of YY Live, mainly operating in Southeast Asia. YY's live streaming revenue derives from taking a cut in the virtual gifts viewers reward streamers that can be cashed out, also known as revenue sharing. Take rate is 42% in 4Q18 for live streaming by deducting revenue sharing costs and content costs.

Likee is a short-form video sharing and social application under Bigo with its main market in Southeast Asia. It was launched in 2017 and has now accumulated over 20 million users. IMO is an instant messaging and free impromptu video chat application featuring in app purchases and advertisements with its market mainly in the Southeast Asian market. Hago is a casual gaming social network platform that provides over 50 casual games, chatrooms, livestreaming, and other functions in more than 33 countries and regions, featuring purchase of in-game virtual items.

2Q19 Earnings Review

- Revenue increased 66.8% YoY to RMB 6295.2 million with live streaming contributing 94.08%. The increase is primarily attributable to continued increase of top line growth for YY and Huya, as well as the consolidation of the Bigo segment.
- Net income attributable to controlling interest of YY was RMB42.1 million, compared with a net loss of RMB99.9 million in the corresponding period of 2018. Net margin was 0.7%, compared with (2.6%) in the corresponding period in 2018.
- Gross margin dropped to 33.7% from 38.7% in 2Q2018, mainly due to the lower margins of Huya and Bigo, as well as increase in revenue sharing cost and content cost.
- ARPU increased to RMB525.78 from 2Q18's RMB 515.90 for YY and Huya combined.
- Number of paying users for YY increased 19.1% YoY to 4.2 million; Paying users for Huya increased 46.7% YoY to 4.9 million.
- 3Q19 guidance expects revenue between RMB6.57 billion to RMB6.77 billion, a YoY growth of 60.2% to 65.1%

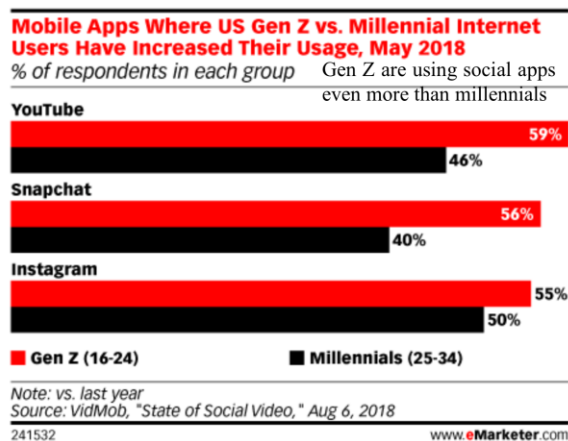
Industry Outlook

Increasing purchasing power of Gen Z and millennials will allow the market to enjoy a higher ARPU

Generation Z and millennials two generations most relevant and familiar with smartphones and technology, especially for gen Z, whom is the first generation to grow up in mobile. According to survey in 2017 in the US, 66% of those between 35-54 years old have did not make any app purchases, while only 36% did not for those between 18-34 years old. The percentage of people who purchased more than 12 times in the past year increased significantly from 3% to 19% from 35-54 years old to 18-34 years old., as shown in figure 4. Moreover, only 36% of millennials have never made app purchases. Also, as seen in figure 5, gen z is using social applications even more than millennials

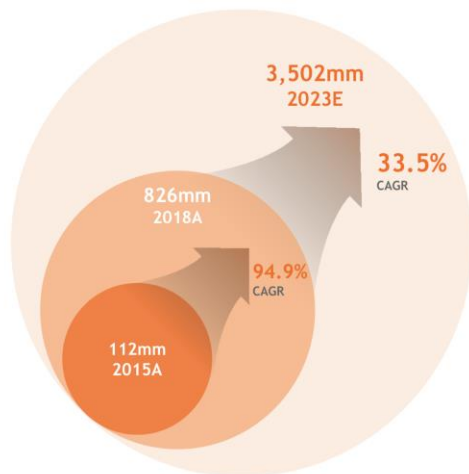
These numbers suggest the increased willingness to spend time and money on apps among millennials and gen Z. This willingness to spend on mobile apps would mean that the average revenue per user from millennials and gen Z are likely to be much higher compared to other age groups. Looking forward, we can expect a general trend of increase in average revenue per user on live video services and value added services. The industry is expected to be strategically focused on the

Figure 6. Apps Gen Z v.s. Millennials have increased internet usage



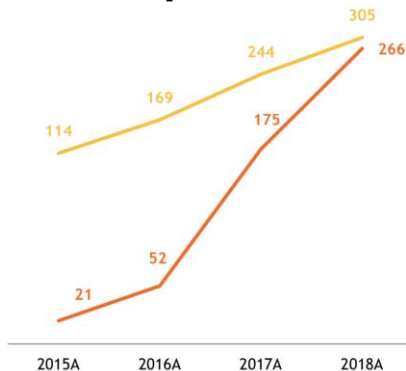
Source: Marketer

Figure 7. Increasing demand of short-form videos by MAU



Source: YY Aug. 2019 Presentation

Figure 8. Increasing hours of time spent on short-form video platforms in China



Source: YY Aug. 2019 Presentation

two generations imposing strong competition for the growing millennial and gen Z market.

Robust growth for live video streaming demand

The Asian live streaming market is projected to grow at a CAGR of 46.4% from 2019 to 2023 according to a report by Infoholic Research. This is a significantly higher growth rate as compared to that of the global growth rate. The global live streaming market is projected to grow at a CAGR of 17.8% from 2019 to 2025, 60% lower than the Asian live streaming market growth rate. Additionally, according to a new report from Media Partners Asia, Asia's online video business is set to grow from \$26 billion in 2019 to \$52 billion in 2024. YY is poised to benefit from this trend given that its key markets are in Asia.

Smartphone penetration set to significantly increase in Southeast Asia

Southeast Asia's internet economy is set to triple in size to US \$300 billion by 2025. Its current internet penetration rate is highest in Singapore with 84.5%, and 50% to 80% for the rest of the Southeast Asian countries. China's internet penetration rate is 58.4%, which compared to the more mature markets' 80%-90%, Southeast Asia and China still has much room for growth. Mobile internet data traffic is expected to almost triple in the next three years. Moreover, Southeast Asians have the tendency to spend long hours on mobile internet usage, averaging 3.9 hours per person per day, compared with the US' 2.2 hours and Japan's 1.3 hours.

Smartphone ownership rate in Southeast Asia and China are currently standing at around 50-60%, lacking behind more mature markets' 80-90%. Smartphone ownership in Southeast Asia and China is expected to continue growing steadily. A larger addressable population for live streaming, casual gaming, and short-form video sharing will emerge as smartphone users increase and internet penetration boosts.

Internet infrastructure improves in emerging markets

Southeast Asian mobile carriers have been proactively rolling out 4G mobile networks in the region, covering more than 50% of users' connection. This is accompanied with the increased affordability of mobile internet in Southeast Asia, with 1 gigabyte data taking up to 2% of gross national income per capita in 2014 to less than 0.8% in 2018. Also, e-commerce giant Alibaba is increasing investments in lower tier cities in China, signaling a satisfactory quality of internet infrastructures in lower tier cities in China.

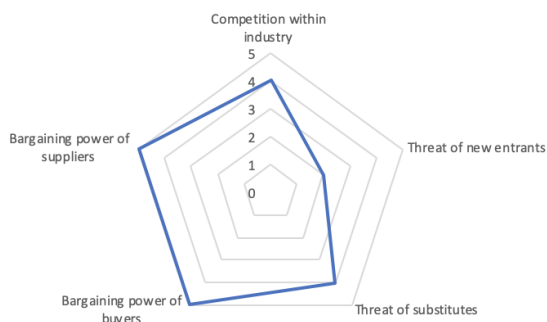
Porter's Five Forces

Putting the above points into a Porter's Five Forces diagram, we observe that the expected competition within the industry will be high due to the crowded live streaming market in China. Due to the high barriers to entry for this market, it is unlikely that there will be new entrants to the market in the near future. We also observe the critical need for satisfying and retaining users as suppliers and buyers' bargaining power adjoin.

Competition within industry - High

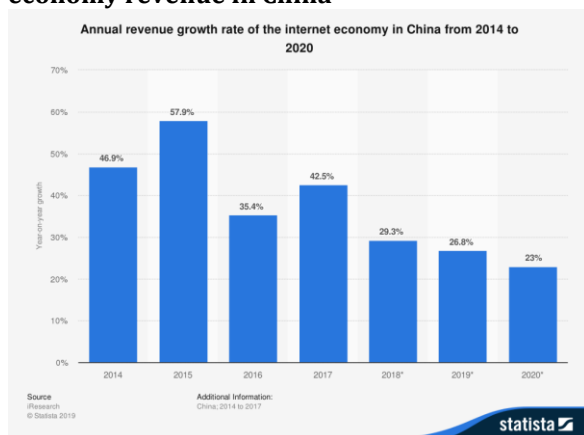
In China, competition in live video streaming is higher, with major competitors including Momo, Huajiao, Yizhibo, and Inke. Since live streaming revenue from China currently contributes to a nearly 80% of total revenue, we deem competition in the industry high. However, Live video streaming competitors in Southeast Asia have limited user base and brand awareness, which is unlikely to impose immediate threat towards YY's Bigo. For short-form video sharing, we deem the market to be moderately competitive due to the limited numbers of such competitors in China and Southeast Asia.

Figure 9. Porter's 5 Forces



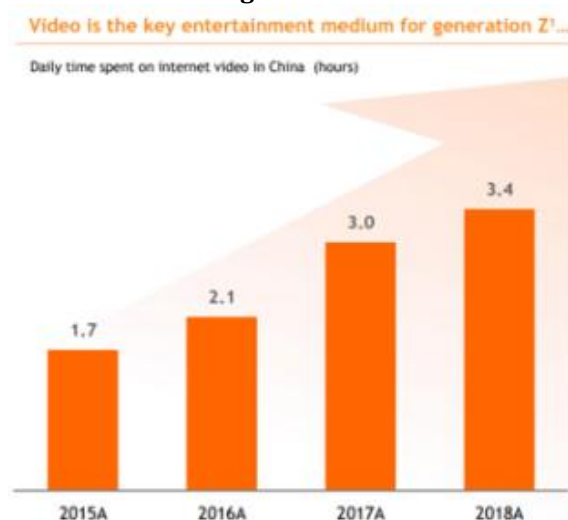
Source: NUS Investment Society estimates

Figure 10. Decreasing growth rate for internet economy revenue in China



Source: Statista

Figure 11. Hours spent on internet videos in China continues to grow with momentum



Source: YY Investor Presentations

Threat of new entrants - Low

The development of quality live streaming or video sharing platforms for satisfactory user experience requires extensive product development and purchasing of bandwidth, which are both costly. The accumulation of users, which is the fundamental of such platforms, is expected to be difficult since it requires poaching users from platforms, they are more familiar with and have more connections on.

Threat of substitutes - High

In the world of internet, there are unlimited choices of substitutes for consumers to choose from. Popular substitutes from the internet will be YouTube, Netflix, Facebook, and other social media or online streaming service providers. Therefore, it is easy for consumers to opt for other platforms.

Bargaining power of buyers - High

Buyers on YY's platforms are considered those who spend on virtual items in live streaming, or those targeted by advertisements in other applications. These users often have various choices between platforms with similar offering to switch or can easily cease to spend if they deem it unnecessary or not worth it but still participate in the live streaming community. Therefore, we deem the bargaining power of buyers high.

Bargaining power of suppliers - High

Suppliers of YY's applications are mainly considered as those who provide content on live video streaming platforms. These content providers often have a group of loyal fans which may follow them whichever platform they go to. Since the content and viewers of such platforms are the fundamentals, but not entirely in YY's command, their bargaining power is deemed high.

Investment Thesis

1. YY's recent acquisition of Bigo (completed in 2Q19) confers on it the key competitive advantage of superior content regulation over its competitors. This would allow it to secure long-term growth of revenue and aid in its penetration of overseas markets

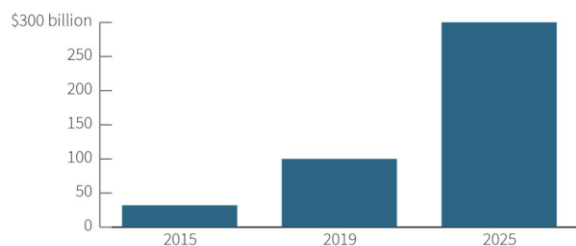
Over-exaggeration of global expansion costs

The focus of the recent acquisition of Bigo has been the depressed margins as net profit margin has fallen from 22% to 13%, sending the stock price tumbling down roughly 30% since April this year. This suggests to our team that the market may be unfairly punishing the stock for the increased global expansions costs that the company has taken up, which we find necessary to secure its long term revenue growth. Overall, the main reason for YY's acquisition of Bigo was for increased exposure to overseas market, opening up additional revenue streams as well as access to growing markets especially in Southeast Asia.

Bigo acquisition may confer benefit that the market has yet to price in

Given the significant decline in YY's stock price, it appears that the market may not have considered a key advantage which Bigo brings: superior content moderation. This is key as we see regulators around the world ramping up regulation on the video and live streaming industries. In China, the Cyberspace Administration of China (CAC) had shut down more than 3,100 live-streaming programmes were shut down due to inappropriate content. In fact, YY's competitor Momo had its subsidiary app, Tantan suspended from multiple app stores in the country as part of the government's clamp down. This sent Momo's share price spiralling down 8%, demonstrating the severity of a possible impact of government regulation. As such, it is evident that a key determinant of survival in the overall market is proper regulation of content.

Figure 12. Southeast Asia's internet economy is set to triple



Source: Reuters

Figure 13. Bigo performing well on international app stores

Bigo Live	Hago	Likee	IMO
India (22)	India (9)	India (3)	India (13)
Indonesia (16)	Indonesia (6)	Indonesia (5)	Pakistan (5)
Pakistan (8)	Vietnam (4)	Brazil (8)	Saudi Arabia (2)
Vietnam (6)	Brazil (16)	Russia (8)	Egypt (7)
US (44)	Thailand (7)	Pakistan (6)	Russia (14)

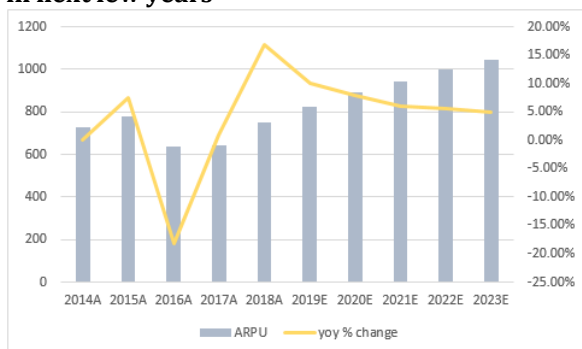
Source: SensorTower

Figure 14. Large potential for monetisation still untapped



Source: YY Investor Presentations

Figure 15. ARPU is projected to grow steadily in next few years



Source: NUS Investment Society estimates

Our team believes that Bigo's content moderation system will help regulate all of YY's platforms content, allowing it to avoid scrutiny and actions from government regulators. Bigo employs a team of more than 2,000 moderators around the world to go through the content and average 60,000 daily bans across all their apps. Furthermore, Bigo has engaged in successful partnerships with Indonesia's Ministry of Communication and Information Technology (Kominfo) and IMAI to strengthen its regulation capabilities.

Evidence of Bigo's superior content moderation technology

It ought to be noted that the claim of Bigo's competitive edge in regulation is not made without substantiation. In fact, this competitive edge has already been recognised globally as it is currently helping the Indonesian government filter its internet content. Meanwhile, it is also in talks with authorities in India, Vietnam, Egypt, and the Middle East to export its content review technology. Bigo's artificial intelligence powered content moderation system has successfully attained a 99% accuracy in identifying illegal content.

As such, our team believes that Bigo's content moderation system can be applied to all of YY's platforms and ensure the longevity of the company by avoiding heavy fines from government regulators. This would go towards cementing YY's position as a long term market revenue and growing its market share as other competitors are hurt by regulatory actions. Overall, this would signify long term growth of revenue for YY, painting an optimistic picture of the company's future.

2. YY is likely to successfully expand into key markets overseas and establish a dominant position as a market leader in those markets, sustaining the long-term growth of its revenue

Worries over slowing growth in China being addressed by YY

YY is seeking to mitigate the effects of a possible slowing of their domestic live streaming market by expanding into overseas markets. There has been a growing attitude of pessimism towards YY's business in China due to concerns over an overall slowdown in the live streaming market. Our team believes that YY has aptly recognised these concerns and launched an overseas expansion effort in order to penetrate growing markets which present future revenue growth opportunities.

Hago tops overseas charts

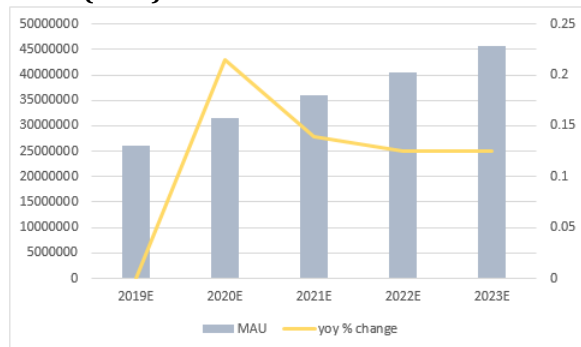
An example of YY's success in its global expansion efforts would be Hago, a casual game-oriented social network, which was released by the company in the third quarter of 2018. Hago is currently available in 33 countries and regions worldwide with a focus on Southeast Asian markets. YY's commercial expertise has shone through with Hago consistently topping the charts of the most popular applications on both AppStore and Google Play in both Indonesia and Vietnam. YY reported 25.3 million MAU for Hago in 2Q19.

Given that Hago has a unique position in the market as a casual game social network app with no clear competitors, our team believes that Hago will continue to gain market share and grow its current user base. This growth in number of users will go towards revenue but more importantly is key to long-term revenue growth in the future upon monetisation of these users.

Acquisition of Bigo provides international exposure and opens up more revenue streams

YY has successfully completed its acquisition of Bigo earlier this year in 2Q19. This has broadened its reach to South East Asia, Europe, and US. There are three main apps under Bigo: Bigo Live, Likee, and IMO. Bigo Live and Likee has proven its popularity in at least 7 international markets with top 5 app downloads. Given YY's expertise in internet industry, our team is confident that YY's overseas business

Figure 16. HAGO's projected Monthly Active Users (MAU)



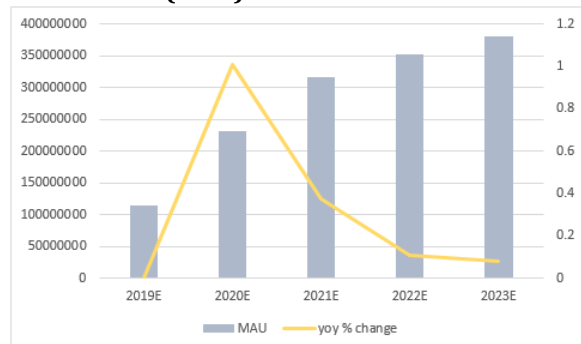
Source: NUS Investment Society estimates

Figure 17. Likee gaining traction internationally



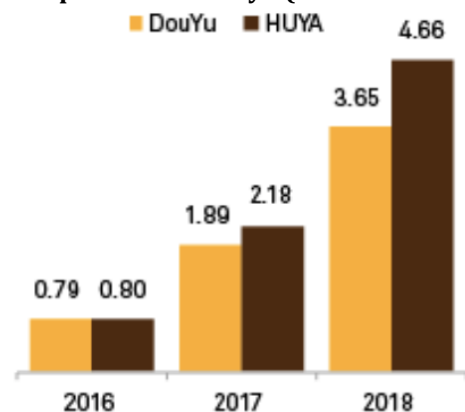
Source: YY Investor Presentations

Figure 18. BIGO & Likee's projected Monthly Active Users (MAU)



Source: NUS Investment Society estimates

Figure 19. Huya superior revenue growth compared with Douyu (in RMB billions)



Source: S&PGlobal

segments will be able to achieve the same kind of success that its China segment has enjoyed.

The international market is currently under-developed by YY, posing huge potential in growing its monetizable user base. Bigo Live is considered as the international version of YY Live, set to capture the Gen Z market worldwide. Our team believes the business model and features of Bigo Live will enable it to capture users and see fast growth starting with Southeast Asia, its focused market, considering the success of YY Live's business model in China. Furthermore, management has stated that the key focus for Bigo are developed markets as they present users with greater purchasing power. As such, each user acquired in a developed market will also mean a higher ARPU upon monetisation. It is therefore clear that the company's global expansion has been strategically focus and that the expansion costs are being well spent.

In the international market, Hago, IMO and Likee have shown much success in growing their numbers of users and we are optimistic that they will be able to beat their respective competitors, emerging as market leaders. As mentioned earlier in the report, Hago has enjoyed tremendous success in penetrating foreign markets and this is evidenced by its high ranking in the various app stores. Given its recent release, Hago is still in the midst of its user acquisition stage but the users that it is acquiring will be crucial in the long term when the company starts to monetise Hago. IMO is a chat and instant messaging application which incorporates videos as a main form of communication. IMO's MAU recently reached 211.9 million in 2Q19. Given its large user base, IMO will also be able to direct traffic towards YY's other businesses, further fuelling growth in number of users and eventually increased revenue through consumer spending.

3. As business segments reach the end of their user acquisition stage, the largely untapped user base presents unrealised revenue growth potential which the company is likely to tap on through monetisation efforts, enabling a long-term increase in ARPU

Business segments reaching end of user acquisition cycle

Maturing business segments such as Huya, Hago, IMO and Likee are transitioning from the user acquisition stage to the monetisation phase. This suggests that revenue is expected to increase substantially as these companies begin monetisation. Given YY's prior experience and success in monetising its market in China, our team is confident that YY will be able to monetise its user base faster than expectations and provide exceptional revenue growth.

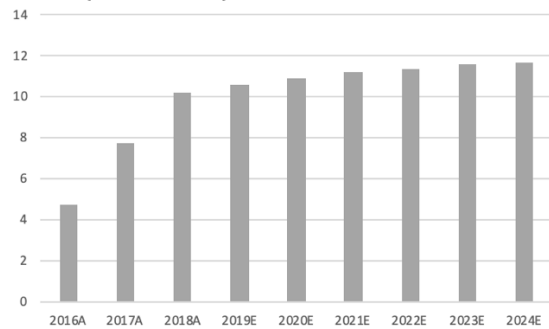
Huya ARPU set to grow

While Huya is a much more mature business segment as compared to Hago and Likee, there still is a lot of room for its ARPU to grow. Huya provides live streaming services specifically targeted at gaming. China has the largest video game market in the world and is set to see rapid growth in the video game live streaming industry. This will largely be driven by the growth of e-sports.

Huya beating competition and emerging as the market leader

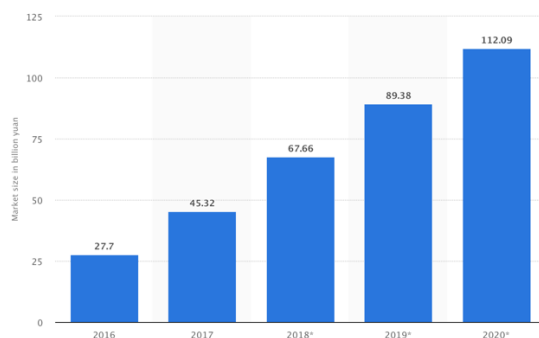
Huya is currently a market leader in China's gaming live streaming market and has successfully outperformed its main competitor, Douyu on multiple fronts. For the second quarter of this year, Huya had 55.9 million mobile MAUs while Douyu only had 50.6 million. Net income for Huya came in at 121.8 million RMB while that of Douyu came in at 24.0 million RMB. Furthermore, Huya has much better margins with a net profit margin of 6.06% as compared to Douyu's 1.28%. Higher revenue and income will directly benefit Huya as the market's lifeblood is its streamers. Top streamers attract viewers to the

Figure 20. Projected growth of Huya paying users (in millions)



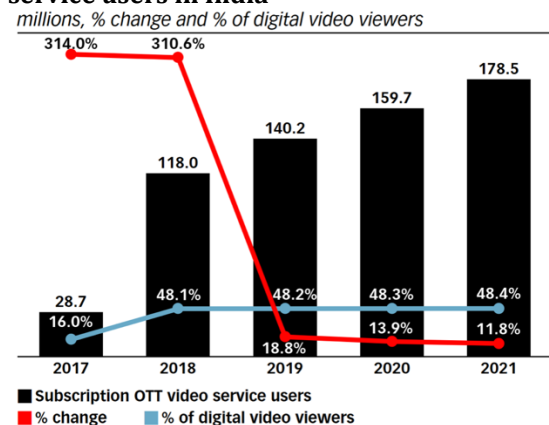
Source: NUS Investment Society Estimates

Figure 21. Growing Chinese online live streaming market (in billions Yuan)



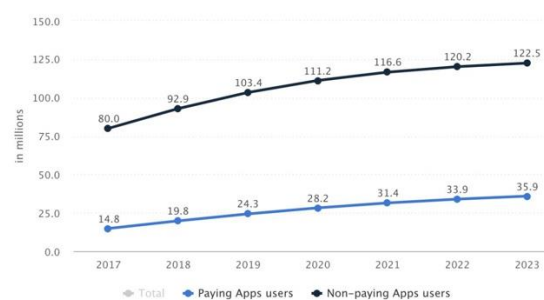
Source: Statista

Figure 22. Increasing over-the-top video service users in India



Source: eMarketer

Figure 23. Growth of Likee userbase in India



Source: Statista, June 2019

Source: Statista

platform, on which they would make their in-app purchases, driving revenue. The race is thus to secure as many top streamers as possible and this is largely done through higher paying contracts. As such, the company's profitability is key in determining whether they can afford to continue securing the top streamers. Even then, Huya recognises the importance of its streamers and have attained exclusive possession of their streamers using binding contracts. When Haitao "Haishi" Jiang tried to switch over to rival Douyu's platform, Huya was awarded US 7million for Haitao's breach of contract. This suggests that Huya will likely be able to retain its top streamer and maintain its position as a market leader.

Our team is confident that Huya will be able to emerge as the prominent market leader in China's video game live streaming market, capitalising on the lion's share of profits. With the expected expansion of the video game live streaming market coupled with YY's previous monetisation success with YY Live, it is likely that Huya's ARPU is set to continue its increase.

4. Likee's growing popularity combined with its content management capabilities is likely to be able to allow it to be a market leader in the short-form video industry.

Likee's competitive edge: Content Regulation

As explained in the earlier portion of the report, Bigo's content management system will largely protect Likee from government regulation which is sure to be imposed as the short-form video is set to rapidly expand in the near future.

Competitors harmed by government regulation

Our team is confident that Bigo's regulation efforts will continue to be successful and avoid penalties from the government. Meanwhile, their main competitors ByteDance and TikTok have been the target of government scrutiny. TikTok was fined a record USD \$5.7 million by the Federal Trade Commission for allegedly collecting personal information from children. Additionally, ByteDance founder Zhang Yiming had to issue an apology and was told to increase its number of "content controllers".

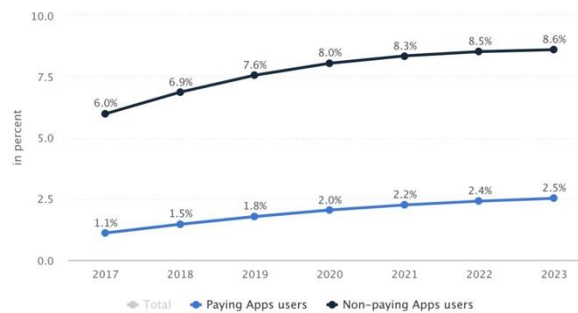
Likee's global expansion plan: India

As part of its global expansion efforts, Bigo has announced a particular focus on the Indian markets with over USD \$100 million being invested in India over a span of the next 3 years. India presents a beneficial market to penetrate as its over-the-top video streaming market is expected to grow from \$500 million in 2018 to \$5 billion in 2023. Furthermore, India was the top country in terms of hours spent on video-streaming apps according to App Annie's State of Mobile 2019. The importance of India as a key market is further affirmed as even Alibaba is seeking to penetrate it with its own video app, Vmate. The number of paying users in India is projected to increase from 14.8 in 2017 to 35.9 in 2023 which is supported by growth in the penetration rate from 1.1% in 2017 to 2.5% in 2023.

Likee's differentiating business strategy for India

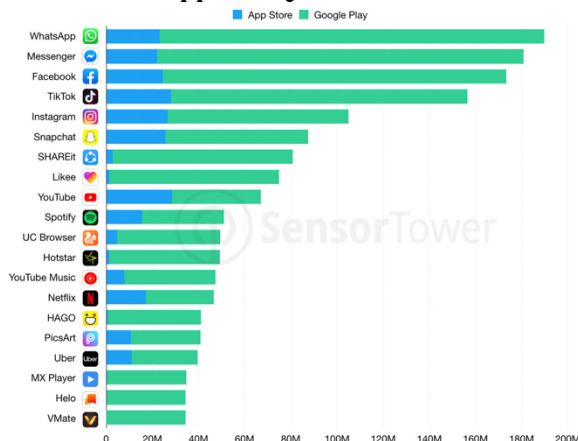
Likee hosts content in different in Indian languages: Hindi, Tamil, Marathi, Telugu, Gujarati, Bengali, Kannada, Malayalam and Punjabi. It ought to be noted that Likee has been in the Indian markets since 2017. In order to enhance the quality of the content on their platform, it has collaborated with celebrities like Shakti Mohan, Zakir Khan and RJ Naved. In addition, it has engaged in media agency tie-ups and associations with hundreds of creators. Likee was the third most downloaded social networking app in India. This stands testament to Likee's successful penetration of the Indian market. Lastly, it ought to be noted that the Indian government has approached Bigo to discuss a potential contracting of its content management system, further affirming our thesis on Bigo's competitive advantage

Figure 24. Growing penetration rate of Likee in India



Source: Statista

Figure 25. Likee is among the top 10 most downloaded apps in Q19



Source: SensorTower

Figure 26. Bigo and Hago among top 11 apps usage in India on Google Play Store

App	Publisher	Usage Rank
1 Facebook	Facebook	1
2 Instagram	Instagram	2
3 TikTok - Make Your Day	TikTok Inc.	3
4 Facebook Lite	Facebook	4
5 Helo - Best Interest-based Community App	Helo Holdings Limited	5
6 Vigo Video - Funny Short Video	Vigo Video	6
7 ShareChat - Make Friends, WhatsApp Status & Videos	ShareChat	7
8 Vigo Lite - short video, comedy, talent	TikTok PTE.Ltd.	8
9 Snapchat	Snap Inc	9
10 BIGO LIVE-Live Stream, Video Chat, Make Friends	BIGO TECHNOLOGY PTE. LTD.	10
11 HAGO - Play With New Friends	Hago Games	11

Source: SimilarWeb

of superior content regulation. More importantly, this suggests that Likee is unlikely to face government regulation in India given that they utilise the very content management system which the government is interested in using. All of these factors culminate in a strong reason why Likee will beat out competition and emerge as the dominant market leader in the Indian markets, boosting overall revenue.

Successful Market Penetration Globally

Apart from avoiding the scrutiny of government regulations, Likee has been successful in its user acquisition efforts with 80.7 million MAUs and is topping the overseas app store charts. Likee has reached more than 100 million app installs on Google Play so far. Likee was also among the 10 most downloaded apps worldwide for August 2019 according to a Sensor Tower report.

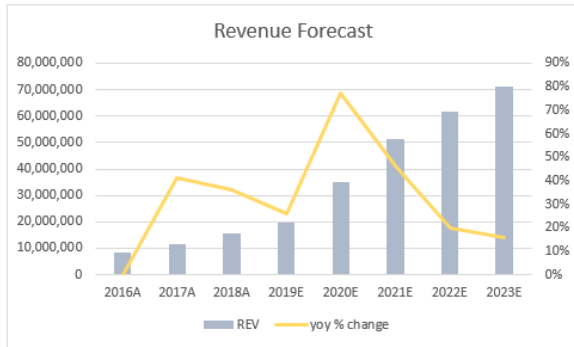
Industry Tailwinds

The overall market is unlikely to have priced in the full extent of the possible revenue growth coming from the rapid expansion of the short-form video industry which is just on our horizon. YY's short form video app under Bigo, Likee is set to capture the short form video market globally. Global short-form video MAUs are expected to grow to 3,502 million by 2023 at a CAGR of 33.5%. Furthermore, the global short-form video monetisation potential is set to grow to US \$99.6 billion at a CAGR of 55.6%. Likee is set to benefit from trends in this industry, boosting overall demand and propelling top-line growth. Likee's past performance further instils confidence in our team as Likee's MAU figure increased by 374.7% YoY in 2Q19. Furthermore, Likee ranked 3rd in India's "Social Networking" category and 5th in Indonesia's. Given the trend of short form videos and videos as a means of communication, it is likely this user growth will be able to be sustained. The overall expansion of the industry will greatly boost both number of paying users as well as ARPU, resulting in an extremely substantial increase in revenue.

Catalysts

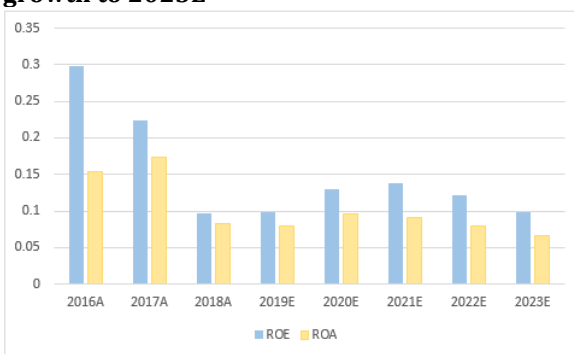
- Likee has recently announced a collaboration (in September 2019) with Fox Star Studios to promote a movie 'Chhichhore' which has been released in September 2019. The movie stars Shraddha Kapoor, Sushant Singh Rajput, Varun Sharma and more. Fox Star Studios has been promoting the hashtag #Chhichhore on Likee, providing users the opportunity to meet lead actors Sushant Singh Rajput and Shraddha Kapoor. As such, more users will be attracted to Likee, contributing to Likee's user acquisition efforts. This is likely to boost 4Q19 MAU figures, beating estimates and sending YY's share price up.
- YY is likely to see an improvement of margins due to lowered costs. One key event that may serve to materialise this is a lowering of broadcaster-sharing fees due to Tencent's large shareholding in both Huya and its main rival, Douyu. It was reported in September that Tencent has stealthily folded Douyu and Huya into a new unit in a bid to achieve more synergy and avoid "sibling rivalry". There has also been rumoured internal talks exploring a stillborn plan of merging Huya and Douyu outright. Additionally as business segments such as Hago and Bigo mature, the company would likely reap the benefits of economies of scale and will go towards further lowering costs.

Figure 27. Historical and projected revenue shows effects of continuous expansion and further monetisation



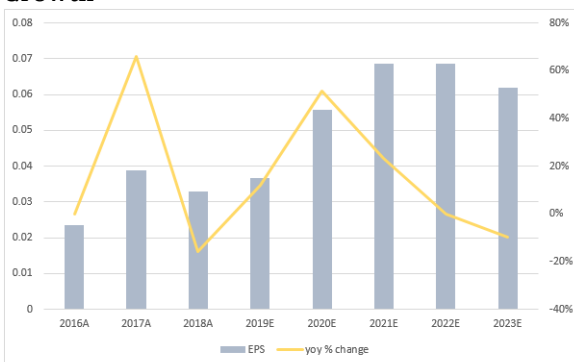
Source: NUS Investment Society Estimates

Figure 28. Historical and projected ROE, ROA, ROIC shows stabilization in 2019E and steady growth to 2023E



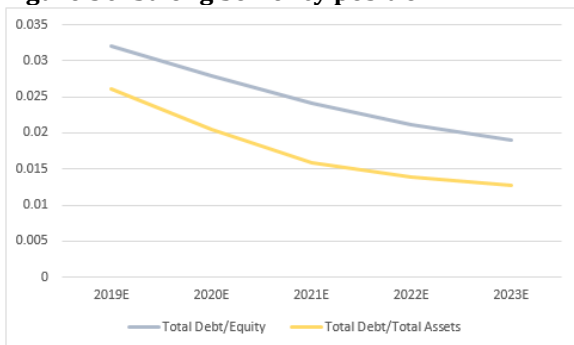
Source: NUS Investment Society Estimates

Figure 29. Projected EPS shows a strong Growth



Source: NUS Investment Society Estimates

Figure 30: Strong Solvency position



Source: NUS Investment Society Estimate

Financial Analysis

	Units	2016A	2017A	2018A	2019E	2020E	2021E	2022E	2023E
Profitability Ratio									
EBITDA Margin	%	24.9%	25.3%	18.1%	39.9%	44.4%	42.7%	38.3%	22.9%
Operating Margin	%	21.6%	23.3%	16.8%	21.9%	23.5%	25.1%	26.5%	28.1%
ROA	%	15.4%	17.3%	8.2%	8.0%	9.8%	10.5%	10.4%	10.0%
ROE	%	29.9%	22.3%	9.7%	10.0%	13.5%	14.8%	14.1%	12.8%
Growth Ratio									
Revenue	%	-	41.3%	36.0%	25.7%	77.2%	47.3%	27.0%	23.7%
EBITDA	%	51.8%	43.6%	-2.7%	14.4%	57.5%	30.7%	12.6%	6.3%
Operating Income	%	52.5%	52.4%	-2.1%	13.4%	55.7%	28.9%	10.9%	3.8%
Solvency Ratio									
Total Debt/Equity	%	54.7%	5.3%	0.0%	3.2%	2.8%	2.4%	2.0%	1.8%
Total Debt/Total Assets	%	2.8%	4.1%	0.0%	2.6%	2.0%	1.7%	1.5%	1.4%
EBIT to Interest Expense									
Liquidity Ratio									
Cash Ratio	x	1.1x	2.8x	3.7x	3.1x	2.4x	2.1x	1.8x	1.6x
Current Ratio	x	1.3x	3.2x	4.3x	3.5x	2.7x	2.3x	2.1x	1.8x
Shareholder Returns									
EPS	x	0.02	0.04	0.03	0.04	0.06	0.08	0.08	0.09

Overview:

The chart above reveals YY's financial condition prospects for the next 5 years, highlighting our assumptions. Most indicators show positive trends and are supportive of the overall BUY recommendation.

Strong Top Line Growth

YY has recent acquisitions resulting in a big boost in its total MAU, Bigo have contributed greatly to the total rise in MAU. Furthermore, recent acquisition showed impressive growth trends with Bigo leading the charge and expected to contribute positively to the bottom line, we believe that YY has made the right acquisition for Bigo.

Continuous R&D

We anticipate YY to continue to allocate resources into its R&D to continue seeking new paying features and prepare for its future monetisation efforts for both Hago, Like and Bigo. More paying features would definitely lead to a strong top line in the near future.

Improving EBITDA Growth

With its continuous expansion and more paying futures, we are expecting its EBITDA margin to improve as shown in the diagram above which would see a huge growth in 2020 as its monetisation effort for Like and Hago would come to realisation.

Valuation

Valuation Price Target: **\$83.18**

DCF Model

A discounted cash flow model was adopted to estimate the intrinsic value of YY's share price. The model adopts a 5-year forecast period as projections beyond such a timeline would be too uncertain. Both the Exit Multiple Method and Gordon Growth Method were used to capture the terminal value of final year cash flow. Our model adopts a 5-year forecast period, given the infeasibility of growth rate on a long-term basis, we assumed the growth will slowly taper off to a steady rate of around 3.0%

We projected revenue by modelling Average Revenue Per User (ARPU) and Monthly Average User (MAU) growth. We projected ARPU using a base and bull case while projecting an individual growth rate assumption each quarter till 2023 for MAU then obtain an annualised number of active users for the year by averaging the four quarters. Number of paying users were obtained by approximating using a MAU to number of paying users ratio. Revenue was calculated through multiplying the number of paying users and the projected ARPU.

Figure 31. Cost of Equity Build-Up

Cost of Equity	12.21%
Risk-Free Rate	3.27%
Equity Risk Premium	8.94%
Beta	1.08
Country Premium	8.28%
Expected Market Return	11.55%
Risk Free Rate	3.27%

Source: Bloomberg, NUS Investment Society Estimates

Figure 32. Sensitivity Tables (Base, Bull)

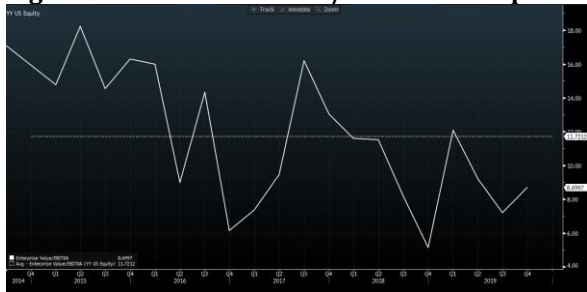
		WACC				
EV/EBITDA	83.18	10.20%	10.70%	11.20%	11.70%	12.20%
	6.00	74.97	73.99	73.03	72.09	71.16
	6.50	80.18	79.14	78.11	77.10	76.10
	7.00	85.40	84.28	83.18	82.10	81.04
	7.50	90.61	89.42	88.26	87.11	85.98
	8.00	95.82	94.57	93.33	92.12	90.92
		WACC				
EV/EBITDA	95.52	10.20%	10.70%	11.20%	11.70%	12.20%
	7.00	87.38	86.24	85.11	84.01	82.92
	7.50	92.73	91.51	90.32	89.14	87.99
	8.00	98.08	96.79	95.52	94.28	93.05
	8.50	103.42	102.06	100.73	99.41	98.12
	9.00	108.77	107.34	105.93	104.55	103.19

Source: NUS Investment Society Estimates

Figure 33. FCF Build-Up

	2019E	2020E	2021E	2022E	2023E
EBIT	2,994,039	4,660,755	6,009,789	6,664,858	6,920,899
Tax Rate	18.8%	18.8%	18.8%	18.8%	18.8%
EBIAT	2,429,711	3,782,277	4,877,040.9	5,408,640	5,616,421
EBITDA	3,271,516	5,152,380	6,734,110	7,584,798	8,059,102
Depre	198198	351161	517372	657100	813002
Amort	79279	140464	206949	262840	325201
Unlevered CFO	2707188	4273903	5601362	6328579	6754624
Capex	-515315	-913018	-1345167	-1708460	-2113806
Unlevered FCF	2191873	3360884	4256195	4620120	4640818
Year	1	2	3	4	5
Discount	89.9%	80.9%	72.7%	65.4%	58.8%
Present Value of FCF	1971109	2717966	3095331.1	3021580	2729421
WACC	11.20%				

Source: NUS Investment Society Estimates

Figure 34. 5Y Historical EV/EBITDA Multiple

Source: Bloomberg

Revenue Growth

Revenue growth for YY will primarily be driven by 2 main engines: number of paying users and average revenue per user (ARPU). In addition, the number of monthly active users (MAU) will also serve to boost revenue through advertising revenue as well as subsequent conversion to become paying users.

YY has various business segments, each at a different stage of growth. As such, each segment would have its main driver of revenue growth. Generally, more mature segments would be supported by growth in ARPU while more nascent segments would be driven by the growth in number of monthly active users and paying users.

We expect YY's growth in MAU and number of paying users to be driven by primarily Bigo, Hago as well as Like. With the strong momentum of expansion seen Hago, we believe its popularity will continue to grow and stay on top of the charts in various application software stores. Similarly, Bigo have sustain its popularity in the Southeast-Asian region being ranked very highly in the top grossing charts of iOS store as well as the Google Play store. Adding on to that, with the explosion to popularity of Like, we firmly believe that the right time of monetisation will be coming soon in the next one or two years. Given the wide user base and YY's experience in monetisation through its prior YY Live and Huya, monetisation of Like and Hago will be huge for the top line growth and likely to exceed expectations.

Due to these revenue drivers, we project strong and sustained growth in revenue over the forecast period. It is worth noting that we projected the Huya's growth to be rather stagnant and constant for quarter starting in 2021. The ratio of MAU to number of paying users is maintained at 5% as well given that the ratio is unlikely to increase continuously with the increasing MAU.

However, we projected Hago, Bigo and Like very differently, anticipating the burst in MAU to slowly taper off and finally become constant around 2%. This would mean that we anticipate the applications to reach a rather mature state in mid-2021 and monetisation efforts will start to pick up in mid-2020 as the user base become wide enough.

Cost of equity

CAPM was used to estimate Cost of Equity. Risk free rate of 2.07% used which is in line with current yields on 10-year Chinese government bonds. Beta was taken from Bloomberg which stands at 1.08. Equity market risk premium of 8.94% used. Cost of equity was calculated to be 12.21%.

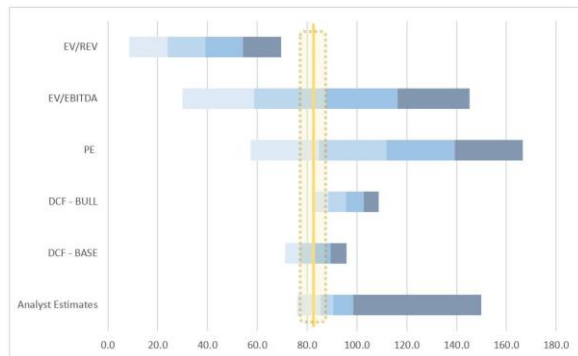
Terminal Growth Method

We did a Terminal Growth Method to provide a sanity check to our primary Exit Multiple Method and RV valuations, using a long-term growth rate of 6.0%. The long-term growth rates were assumed to be much higher than the usual risk-free rate used as it is unrealistic to expect its growing applications to grow at the risk-free rate. Hence, a more realistic 6.0% were used as a gauge.

Relative Valuation

We did an RV as a complimentary to DCF as the intrinsic value a company growing at very high double-digit growth rate is rather hard to estimate. This unpredictability of its cash flow would be we have to seek similar comparable companies to better capture its value. We benchmarked YY to industry peers with similar business model and geographic exposure. Although not all of our comparable companies used have the same business segment, they were the closest match to YY we could find. Our primary comparable metrics were +1FY P/E and EV/EBITDA along with street estimates from various reputable sources.

Figure 35. Relative Valuation and Analyst Estimates



Source: NUS Investment Society Estimates

The intrinsic value of \$83.18 represents an 32.5% upside. We remain confident that this valuation reaffirms our BUY recommendation.

Investment Risks

Regulatory Risk (R1)

Tighter regulations of livestreaming industry: This will hit YY's revenue directly if the SEA region governments decide to clamp down on the rather unregulated live-streaming industry. With China previous clamp on this industry, there is a potential likelihood that other countries will follow suit. In such an event, it is likely that YY's revenue will take a hit when some of the content creators are banned due to tighter regulations, causing the spending of their fans to drop.

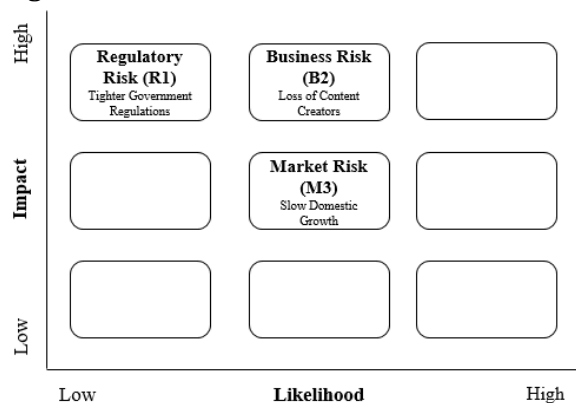
Business Risk (B2)

Loss of content creators: Live-streaming is YY's biggest revenue stream and this would be critical to the business especially if some of the content creators leave for another platform such as DouYu. The user stickiness nature of the business would mean these fans would likely to migrate to other platforms as well. However, this is unlikely as YY is the leading platform and would be able to offer most resource and support to the broadcasters compared to other smaller platforms.

Market Risk (M3)

Slowing domestic growth may hurt YY's core business: China is still YY's largest source of revenue by geography and a slow down in domestic growth would mean a stagnant top line unless its overseas expansion can catch up. If the domestic growth start to stagnant, the disposable income of the consumer would remain constant thus they are unlikely to spend even more on entertainment items such as virtual gifts. It is rather unlikely for the international revenue streams to be enough to fuel its growth given that the international business segments are still at the user acquisition stage. If the monetisation efforts can start early enough, it is still possible for YY to grow with a continuous momentum despite stagnant domestic market.

Figure 36. Investment Risk Matrix



Source: NUS Investment Society Estimates

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Appendix

3FS

YY Inc.		Historical			Projected				
Financial Statements	Units	2016A	2017A	2018A	2019E	2020E	2021E	2022E	2023E
Income Statement									
Net Revenue	RMB thous	8204050	11594792	15763557	19819807	35116085	51737193	65709983	81300242
Live streaming	RMB thous	7027227	10670954	14877667	19819807	35116085	51737193	65709983	81300242
Online games	RMB thous	634325	543855						
Membership	RMB thous	284860	197561						
Others	RMB thous	257638	182422	885890	885890	885890	885890	885890	885890
Total Net Revenue	RMB thous	8204050	11594792	15763557	19819807	35116085	51737193	65709983	81300242
Cost of revenues	RMB thous	-5103430	-7026402	-10017134	-12594725	-22314921	-32876996	-41756166	-51663176
Gross Profit	RMB thous	3100620	4568390	5746423	7225082	12801164	18860197	23953817	29637066
Research and development expenses	RMB thous	-675230	-781886	-1192052	-1498789	-2655505	-3912405	-4969038	-6147985
Sales and marketing expenses	RMB thous	-387268	-691281	-1149316	-1734067	-3625389	-6142557	-8737671	-12108050
General and administrative expenses	RMB thous	-482437	-544641	-883225	-1116047	-1977376	-2913306	-3700109	-4577992
Goodwill impairment	RMB thous	-17665	-2527	0	0	0	0	0	0
Fair value change of contingent consideration	RMB thous	0	0	0	0	0	0	0	0
Gain on deconsolidation and disposal of subsidiaries	RMB thous	103960	37989	0	0	0	0	0	0
Other income	RMB thous	129504	113187	117860	117860	117860	117860	117860	117860
Operating Income	RMB thous	1771484	2699231	2639690	2994039	4660755	6009789	6664858	6920899
Gain on partial disposal of associates	RMB thous	25061	45861	16178	0	0	0	0	0
Interest expense	RMB thous	-81085	-32122	-8616	-8616	-8616	-8616	-8616	-8616
Interest income	RMB thous	67193	180384	485552	0	0	0	0	0
Foreign currency exchange (losses) / gains, net	RMB thous	1158	-2176	-514	0	0	0	0	0
Other non-operating income / (expenses)	RMB thous	0	0	-597819	0	0	0	0	0
Pre-tax Income	RMB thous	1783811	2891178	2534471	2985423	4652139	6001173	6656242	6912283
Income tax expenses	RMB thous	-280514	-415811	-477707	-562704	-876853	-1131125	-1254595	-1302854
Share of income in equity method investments, net of income taxes	RMB thous	8279	33024	58933	0	0	0	0	0
Net income	RMB thous	1511576	2508391	2115697	2422719	3775285	4870049	5401648	5609429
Balance Sheet									
ASSETS									
Current assets									
Cash and cash equivalents	RMB thous	1579743	2617432	6004231	10660185	17678950	24089696	27950732	30743585
Short-term deposits	RMB thous	3751519	6000104	7326996	7326996	7326996	7326996	7326996	7326996
Restricted short-term deposits	RMB thous	0	1000000	0	0	0	0	0	0
Short-term investments	RMB thous	0	124550	979053	979053	979053	979053	979053	979053
Accounts receivable, net	RMB thous	169571	153944	198428	257657	456509	672584	854230	1056903
Inventory	RMB thous	2266	315	0	0	0	0	0	0
Amounts due from related parties	RMB thous	135245	11190	193559	237838	421393	620846	788520	975603
Financing receivables, net	RMB thous	0	0	768343	768343	768343	768343	768343	768343
Prepayments and other current assets	RMB thous	224732	221939	1019019	508651	901212	1327772	1686367	2086472
Total current assets	RMB thous	5863076	10129474	16489629	20738724	28532456	35785291	40354241	43936955
Non-current assets									
Long-term deposits	RMB thous	0	0	1000000	1000000	1000000	1000000	1000000	1000000
Deferred tax assets	RMB thous	117811	113017	70834	70834	70834	70834	70834	70834
Investments	RMB thous	918602	1153019	4591524	4591524	4591524	4591524	4591524	4591524
Property and equipment, net	RMB thous	838750	1016998	1296319	1514337	1900614	2469723	3192533	4086835
Land use rights, net	RMB thous	1872394	1832739	1784639	1784639	1784639	1784639	1784639	1784639
Intangible assets, net	RMB thous	58926	37481	74685	94505	129621	181358	247068	328368
Goodwill	RMB thous	14300	11716	11763	11763	11763	11763	11763	11763
Amounts due from related parties	RMB thous	0	20000	0	0	0	0	0	0
Financing receivables, net	RMB thous	0	0	224793	224793	224793	224793	224793	224793
Other non-current assets	RMB thous	101933	144275	223859	223859	223859	223859	223859	223859
Total Assets	RMB thous	9785792	14458719	25768045	30254978	38470103	46343784	51701254	56259571
LIABILITIES AND SHAREHOLDERS' EQUITY									
Current liabilities									
Convertible bonds	RMB thous	2768469	0	6863	6863	6863	6863	6863	6863
Accounts payable	RMB thous	137107	76351	114589	1189595	2107685	3105292	3943946	4879681
Deferred revenue	RMB thous	430683	758044	951616	1189188	2106965	3104232	3942599	4878015
Advances from customers	RMB thous	56152	80406	101690	118919	210697	310423	394260	487801
Income taxes payable	RMB thous	140754	146298	235561	297297	526741	776058	985650	1219504
Accrued liabilities and other current liabilities	RMB thous	1066038	1465963	2414371	3032430	5372761	7915791	10053627	12438937
Amounts due to related parties	RMB thous	91245	30502	28336	39640	70232	103474	131420	162600
Short-term loans	RMB thous	0	588235	0	0	0	0	0	0
Total current liabilities	RMB thous	4690448	3145799	3853026	5873932	10401944	15322133	19458365	24073401
Non-current liabilities									
Convertible bonds	RMB thous	0	6536	0	0	0	0	0	0
Deferred revenue	RMB thous	25459	57718	91710	118919	210697	310423	394260	487801
Deferred tax liabilities	RMB thous	8058	10810	27505	43604	77255	113822	144562	178861
Total liabilities	RMB thous	4723965	3220863	3972241	6036455	10689896	15746378	19997187	24740063
Mezzanine equity									
Class A common shares	RMB thous	44	57	59	59	59	59	59	59
Class B common shares	RMB thous	26	23	21	21	21	21	21	21
Additional paid-in capital	RMB thous	2165766	5339844	11168866	11168866	11168866	11168866	11168866	11168866
Statutory reserves	RMB thous	58857	62718	101725	101725	101725	101725	101725	101725
Retained earnings	RMB thous	2728736	5218110	6913469	9336188	13111473	17981522	23383170	28992598
Accumulated other comprehensive (loss) income	RMB thous	93066	-9597	336152	336152	336152	336152	336152	336152
Non-controlling interests	RMB thous	6060	101704	2856839	2856839	2856839	2856839	2856839	2856839
Total Liabilities + Equity	RMB thous	9785792	14458719	25768045	30254978	38683704	48610235	58262692	68614997
Check		Balanced	Balanced	Balanced	Balanced	Balanced	Balanced	Balanced	Balanced

Revenue Breakdown

REVENUE DRIVERS		2014A	2015A	2016A	2017A	2018A	2019E	2020E	2021E	2022E	2023E								
Live video service	RMB	3,677,400,000	5,773,500,000	8,043,300,000	11,594,800,000	15,765,600,000	19,819,806,982	35,116,085,482	51,737,193,392	65,709,983,043	81,300,241,776								
Bull Case							20,720,707,299	38,071,984,933	58,208,861,888	75,681,353,983	94,529,191,070								
YY+HUYA		3,677,400,000.00	5,773,500,000.00	8,043,300,000.00	11,594,800,000.00	15,765,600,000.00													
% of Revenue																			
MAU-PC				96100000	96100000	96100000													
MUA-Mobile				56000000	76500000	90400000													
yoy % change					36.6%	18.2%													
MAU-Total		117400000	140700000	152100000	172600000	186500000	212084325	243315224	277207289	312729094	347626150								
# of paying users		3400000	5800000	11000000	16600000	19800000	23985631	39349034	54692148	65841696	77584005								
% of MAU		2.9%	4.1%	7.2%	9.6%	10.6%	11.3%	16.2%	19.7%	21.1%	22.3%								
ARPU		726.7	780.5	637.8	643.2	751.2													
ARPU-Base							826.3	892.4	946.0	998.0	1047.9								
ARPU-Bull							863.9	967.5	1064.3	1149.4	1218.4								
yoy % change		-	7.4%	-18.3%	0.8%	16.8%													
ARPU-Base							10.0%	8.0%	6.0%	5.5%	5.0%								
ARPU-Bull							15.0%	12.0%	10.0%	8.0%	6.0%								
YY																			
Revenue		3,524,000,000.00	5,417,200,000.00	7,246,400,000.00	9,410,000,000.00	11,102,200,000.00													
% of Revenue		95.8%	93.8%	90.1%	81.2%	70.4%	0.0%	0.0%	0.0%	0.0%	0.0%								
MAU																			
yoy % change																			
# of Paying Users																			
Conversion Ratio		3.6%																	
HUYA																			
Revenue		153400000	356300000	796900000	2,184,800,000.00	4,663,400,000.00													
% of Revenue		4.2%	6.2%	9.9%	18.8%	29.6%	0.0%	0.0%	0.0%	0.0%	0.0%								
MAU																			
# of Paying Users																			
MAU to Paying Users																			
HAGO																			
MAU							26027747.5	31613666.8	35998824.14	40516993.71	45602233.38								
yoy % change																			
BIGO +Likee																			
MAU							114902300	230550438.6	319614830	379942049.8	444478459.3								
yoy % change																			
MAU to Paying Users																			
Implied # of Paying Users (BIGO + LIKE +HAGO)																			
YY		3Q19E	4Q19E	1Q20E	2Q20E	3Q20E	4Q20E	1Q21E	2Q21E	3Q21E	4Q21E	1Q22E	2Q22E	3Q22E	4Q22E	1Q23E	2Q23E	3Q23E	4Q23E
Revenue																			
% of Revenue																			
MAU		41623000	44453364	47387286	50420072.33	53546117	56758884	60050899	63413749	66838092	70313673	73829356	77520824	81396865	85466709	89740044	94227046	98938399	1.04E+08
yoy % change		7.0%	6.8%	6.6%	6.4%	6.2%	6.0%	5.8%	5.6%	5.4%	5.2%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
# of Paying Users		4297250	4398334	4503117	4611431	4723076	4837817	4955389	5075491	5197789	5321917	5447477	5579315	5717745	5863097	6015716	6175966	6344229	6520904
Conversion Ratio																			
HUYA																			
Revenue		57912400	59939334	61977271	64022521.31	66071242	68119450	70163034	72267925	74435963	76669042	78969113	81338186	83778332	86291682	88880432	91546845	94293251	97122048
% of Revenue		3.6%	3.5%	3.4%	3.3%	3.2%	3.1%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
MAU		4632992	4195753.4	3718636.3	3201126.066	3303562	3405973	3508152	3613396	3721798	3833452	3948456	4066909	4188917	4314584	4444022	4577342	4714663	4856102
# of Paying Users		8.0%	7.0%	6.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
MAU to Paying Users																			
HAGO																			
MAU		26818000	28292990	29707640	31044483.28	32286263	33416282	34418770	35451333	36514873	37610320	38738629	39900788	41097812	42330746	43600668	44908688	46255949	47643628
yoy % change		6.0%	5.5%	5.0%	4.5%	4.0%	3.5%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
BIGO +Likee																			
MAU		125860000	153549200	184259040	217425667.2	2.48E+08	2.73E+08	2.94E+08	3.12E+08	3.28E+08	3.44E+08	3.58E+08	3.72E+08	3.87E+08	4.03E+08	4.19E+08	4.35E+08	4.53E+08	4.71E+08
yoy % change		24.0%	22.0%	20.0%	18.0%	14.0%	10.0%	8.0%	6.0%	5.0%	5.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
MAU to Paying Users		13.0%	13.0%	13.0%	13.0%	14.0%	14.0%	14.2%	14.3%	14.4%	14.5%	14.6%	14.7%	14.8%	14.9%	15.0%	15.0%	15.0%	15.0%
Implied # of Paying Users (BIGO + LIKE +HAGO)		16361800	19961396	23953675	28265336.74	34701136	38171250	41813878	44634842	47194323	49898164	52251981	54714266	57289931	59984106	62802152	65314238	67926807	70643879

Relative Valuation

Company	Ticker	Stock Price	Market Cap.	P/E Ratio	EV to EBITDA	EV to Rev	EV to MAU
MOMO INC	MOMO US	37.22	7.72B	11.7	8.3	2.3	68.0
SINA CORP	SINA US	41.79	2.90B	15.4	4.7	1.4	
WEIBO CORP	WB US	51.62	11.62B	16.9	14.4	5.4	27.0
GUANGDONG SOUTH NEW MEDIA	300770 CH	16.85	2.16B	33.9	22.8	10.9	
AUTOHOME INC	ATHM US	69.08	8.16B	17.8	19.9	4.9	

Min	11.7	4.7	1.4	27.0
Median	16.9	14.4	4.9	47.5
Max	33.9	22.8	10.9	68.0
Mean	19.1	14.0	5.0	47.5

Target Company	Ticker	Stock Price	Shrs Outstanding	EV	Cash & Equivalents	Total Debt	Market Cap.	EBITDA	Net Income	Exchange Rate
YY INC	YY	63.5	64.5	3020.0	3615.0	774.2	5134.2	2859.8	2209.0	7.0

	Min	Max
PE Implied Share Price	57.3	166.6
EV/EBITDA Implied Share Price	29.8	145.2
EV/REV Implied Share Price	8.6	69.5
EV/MAU Implied Share Price	171.9	432.5