

NetEase Inc. (NTES US)

Passion makes difference

NetEase is well-positioned to capture game premiumization trend with strong 2021-2022 pipeline and overseas expansion. Backed by its outstanding R&D and operation capabilities, we believe NetEase can keep solid growth (game +11% YoY in FY21E) and strengthen its leadership. We expect NetEase to deliver 16%/17% revenue/ adj. net profit growth CAGR in 2020-23E, thanks to strong IP and MMORPG titles, enhanced monetization and improving margin of new biz. Market concerns about game license approval and minor protection have been well priced in, and NetEase's current valuation is attractive, in our view. Initiate with BUY and SOTP-based TP of US\$123.

- Global game provider with ingenuity and innovation.** NetEase is the Top 2 game provider globally in terms of 2020 rev, with long-lifecycles flagship games, such as FWJ (<梦幻西游>, launched in 2004) and Westward Journey (<大话西游>, 2001). It excels itself with high-quality products portfolio (e.g. game, Youdao, cloud music), to build premium and vibrant brand.
- Bullish on strong game pipeline and overseas potential.** We see high visibility for NetEase to leverage IP titles and mobile versions of MMORPG to bring further upside. With global well-known IPs, Diablo: Immortal <暗黑破坏神: 不朽> and Harry Potter: Magic Awaken <哈利波特: 魔法觉醒> would strengthen its presence in US and European market. PC game momentum would continue, backed by its blockbuster title, Naraka Bladepoint. Coupled with stable long-lived games, we expect NetEase's mobile/PC game rev to deliver 16%/7% CAGR in 2020-23E, with improving GPM. Recent regulations on game license and minor protection posed ST pressure on valuations, but secular investment themes intact.
- Music and other innovative biz to unlock long-term TAM.** We expect music biz to be another key driver, backed by favorable regulations about non-exclusive music copyright, high user stickiness, and ramping-up paying ratio & social entertainment revenue. Amid the education headwind, Youdao has improved its GPM significantly in 1H21 and we expect shift towards adult and interest education to minimize risks.
- Initiate with BUY.** We set our SOTP-based TP at US\$123 (implying 25x/22x FY22/23E PE). Further catalysts: 1) upcoming launch of highly-anticipated mobile games; and 2) regulation headwinds to lift.

Earnings Summary

(YE 31 Dec)	FY19A	FY20A	FY21E	FY22E	FY23E
Revenue (RMB mn)	59,241	73,667	86,754	101,285	116,154
YoY growth (%)	15.8	24.4	17.8	16.8	14.7
Adj. net income (RMB mn)	15,663	14,706	17,453	20,660	23,810
EPS (RMB)	24.1	22.0	25.7	30.3	34.5
YoY growth (%)	45.8	(8.9)	17.3	17.6	14.1
Consensus EPS (RMB)	NA	NA	26.0	30.4	35.2
P/E (x)	22.7	24.9	21.2	18.0	15.8
P/S (x)	6.0	5.0	4.3	3.7	3.2
Yield (%)	14.5	5.3	1.4	6.7	1.2
ROE (%)	21.4	15.7	16.8	18.3	18.1
Net gearing (%)	Net cash				

Source: Company data, CMBIS estimates, Bloomberg. EPS, ROE refers to adj. net income.

BUY (Initiation)

Target Price	US\$123
Up/Downside	+50%
Current Price	US\$82

China Internet Sector

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Stock Data

Mkt Cap (US\$ mn)	56,825
Avg 3 mths t/o (US\$ mn)	343.08
52w High/Low (US\$)	134.3/ 78.0
Total Issued Shares (mn)	671

Source: Bloomberg

Shareholding Structure

BlackRock	3.61%
Orbis Allan Gray	2.75%
Invesco	2.58%

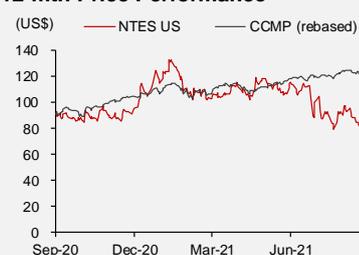
Source: Bloomberg

Share Performance

	Absolute	Relative
1-mth	-8.7%	-5.0%
3-mth	-23.9%	-24.1%
6-mth	-18.5%	-26.4%

Source: Bloomberg

12-mth Price Performance



Source: Bloomberg

Auditor: PwC

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Investment Thesis

Global game provider with ingenuity and innovation.

NetEase is the Top 2 game provider globally in terms of 2020 rev, with long-lifecycles flagship games, such as FWJ (<梦幻西游>, launched in 2004) and Westward Journey (<大话西游>, 2001). It excels itself with high-quality products portfolio (e.g. game, Youdao, cloud music), to build premium and vibrant brand.

Bullish on strong game pipeline and overseas potential.

We see high visibility for NetEase to leverage IP titles and mobile versions of MMORPG to bring further upside. With global well-known IPs, Diablo: Immortal <暗黑破坏神: 不朽> and Harry Potter: Magic Awaken <哈利波特: 魔法觉醒> would strengthen its presence in US and European market. PC game momentum would continue, backed by its blockbuster title, Naraka Bladepoint. Coupled with stable long-lived games, we expect NetEase's mobile/PC game rev to deliver 16%/7% CAGR in 2020-23E, with improving GPM. Recent regulations on game license and minor protection posed ST pressure on valuations, but secular investment themes remained intact.

Music and other innovative biz to unlock long-term TAM.

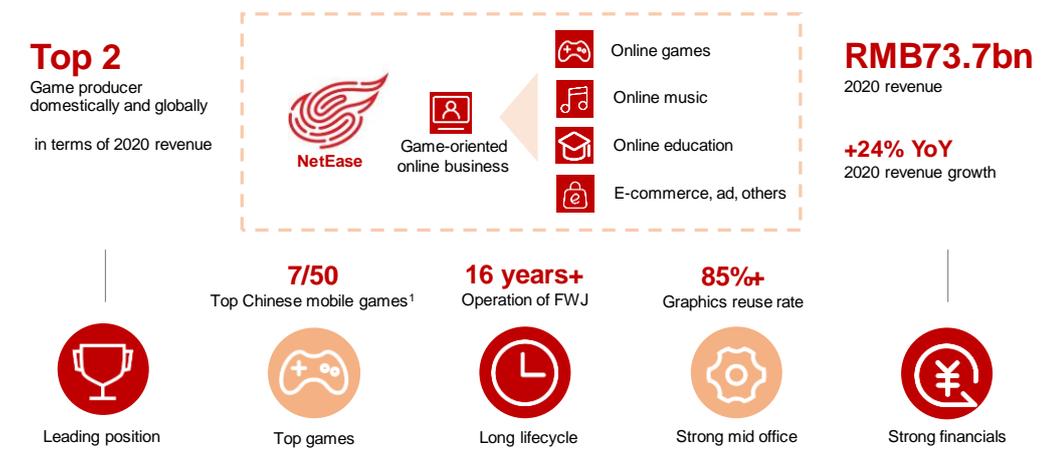
We expect music biz to be another key driver, backed by favorable regulations about non-exclusive music copyright, high user stickiness, and ramping-up paying ratio & social entertainment revenue. Amid the education headwind, Youdao has improved its GPM significantly in 1H21 and we expect shift towards adult and interest education to minimize risks.

Initiate with BUY.

We set our SOTP-based TP at US\$123 (implying 25/22xx FY22/23E PE). Further catalysts: 1) upcoming launch of highly-anticipated mobile games; and 2) regulation headwinds to lift.

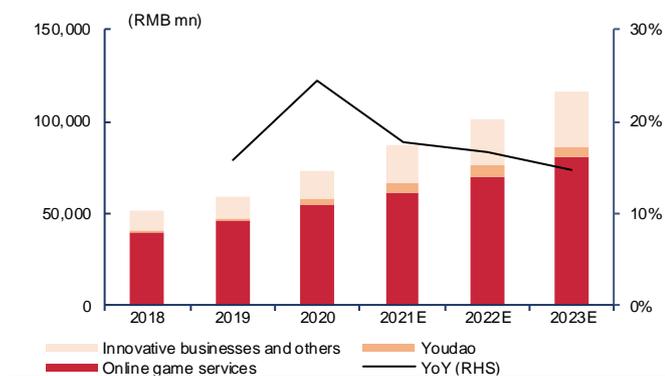
Focus Charts

Figure 1: Overview of NetEase



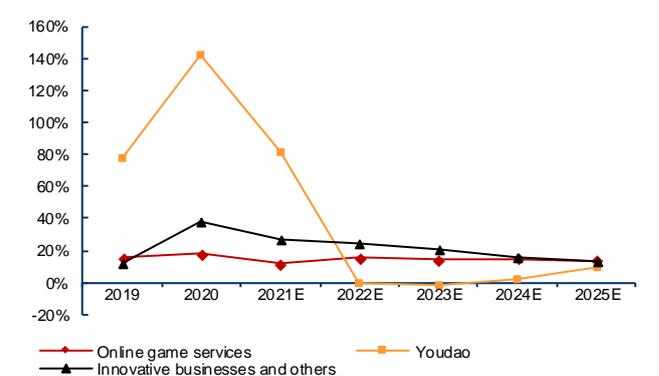
Source: Company data, refer to Figure 6 for note

Figure 2: Rev estimates



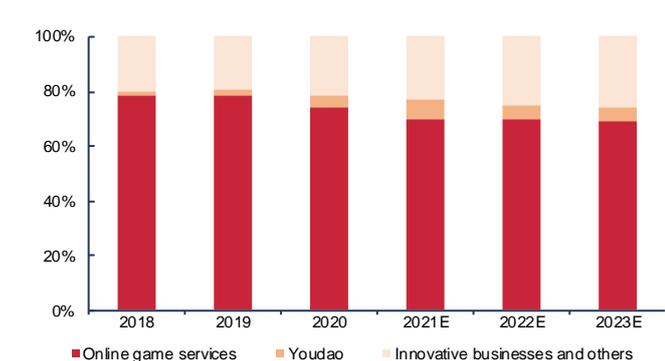
Source: Company data, CMBIS estimates

Figure 3: Rev growth breakdown



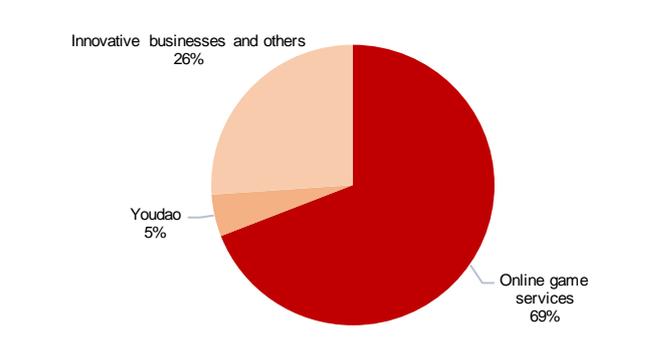
Source: Company data, CMBIS estimates

Figure 4: Rev mix trend



Source: Company data, CMBIS estimates

Figure 5: FY23E revenue breakdown



Source: Company data, CMBIS estimates

Company Overview

Global game provider with ingenuity and innovation

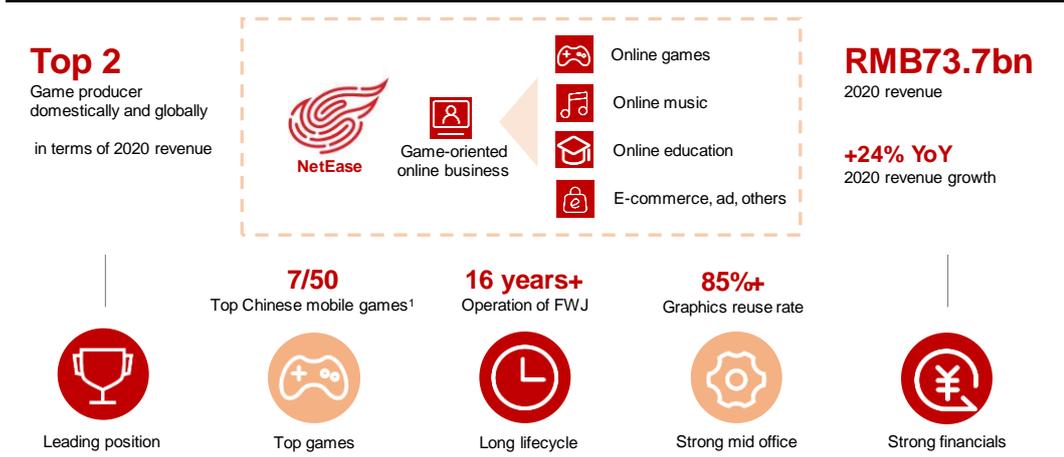
Leading global game provider

Founded in 1997, NetEase is the Top 2 game provider globally in terms of 2020 revenue. With leading game R&D and operation capabilities, NetEase develops and publishes games with long lifecycles and wide fan base, such as Fantasy Westward Journey (FWJ, <梦幻西游>, launched in 2004) and Westward Journey (<大话西游>, 2001).

NetEase has refocused on game business since 2019. Its education business, YouDao (DAO US), sought separate US listing in Oct 2019, and its online music business, Cloud Village, filed for HK listing in 2021. Separate listings would provide additional funding for NetEase's non-game business, unlocking the long-term TAM. NetEase generated RMB74bn revenue in 2020, with 70%/ 30% from games/ others.

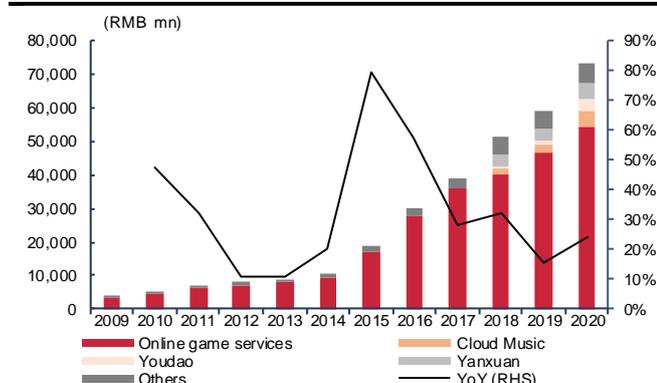
NetEase has strong game pipeline in 2021-22E. Its IP games Diablo: Immortal <暗黑破坏神: 不朽> and Harry Potter: Awakening <哈利波特: 魔法觉醒> may help expand western markets, and its PC battle royale game Naraka: Bladepoint <永劫无生> received record-breaking Steam testing results for Chinese games.

Figure 6: Overview of NetEase



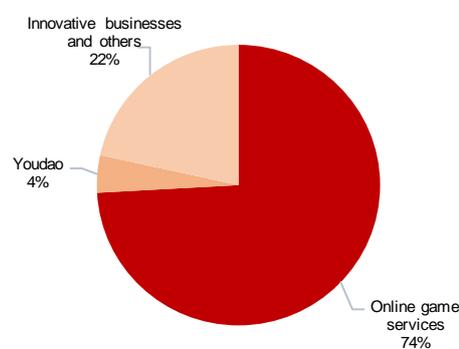
Source: Company data, CIC, CMBIS
Note: 1) According to AppAnnie

Figure 7: NetEase's rev trend in 2009-2020



Source: Company data

Figure 8: NetEase's rev mix in 2020



Source: Company data

Comprehensive game portfolio with top MMORPG names

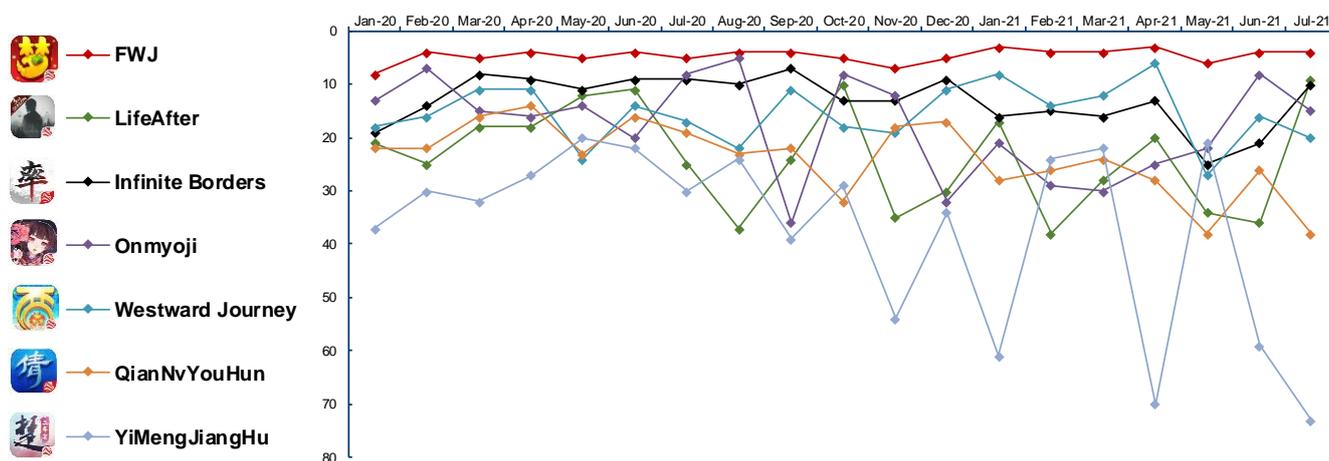
NetEase excelled itself in MMORPG IP games. Its long-lived MMORPG FWJ and Westward Journey ranked Top 4 and Top 20 in China iOS billings as of 1 Jul 2021, according to Qimai. We attribute the long lifecycles to adaptive new versions and engaging operations, which lays solid foundation for its other PC MMORPG names like NiShuiHan <逆水寒>.

Beyond MMO, NetEase cultivates comprehensive game portfolio with core products in almost every genre (esp. SLG, Card), catering to gamers’ ever-changing preferences. Its Japanese ACG-themed Onmyoji <阴阳师>, launched in 2016, is one of China’s leading turn-based RPG. Its LifeAfter was one of China’s first open-world, survival games, ranking Top 9 in China iOS billings as of 1 Jul 2021, according to Qimai.

NetEase also performed well in overseas expansion, with high exposure in Japan and Korea. Backed by its differentiated designs and effective localization, NetEase’s flagship games gained traction overseas, including Knives Out (<荒野行动>, FPS battle royale) and Identity V <第五人格> (asymmetry survival game).

Figure 9: NetEase’s long-term operation of popular games

NetEase games in China iTunes billing rankings¹



NetEase games popular both domestic and abroad²

Knives Out
 Domestic Aug 2021 rev: **US\$500k**
 Abroad Aug 2021 rev: **US\$24mn**

Identity V
 Domestic Aug 2021 rev: **US\$3mn**
 Abroad Aug 2021 rev: **US\$7mn**

Source: Qimai, SensorTower

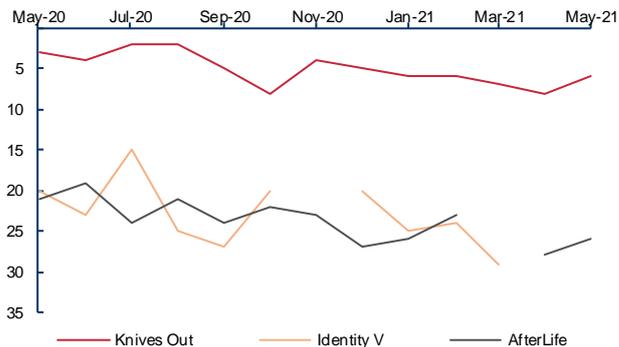
Note: 1) According to Qimai, for NetEase games launched for over one year, iOS ranking in terms of billings of the 1st of each month; 2) According to SensorTower, in terms of iOS billings

Figure 10: NetEase games ranking in China's top games by domestic MAU



Source: Newzoo

Figure 11: NetEase games ranking in China's top games by revenue overseas



Source: Sensor Tower

Unlocking TAM with music, education, and other innovative business

NetEase’s non-game business extends across music, education, e-commerce, and others, as the second growth engine in the long run. As of 2020, NetEase’s non-game revenue amounted to RMB19bn, with e-commerce/ music/ education contributing 6.5%/ 6.4%/ 4.3% of total revenue.

NetEase Cloud Music is China’s fourth biggest online music app (153mn MAU) with the fastest user growth (+12% YoY) in May 2021, according to QuestMobile. With a vibrant community, it has 2bn+ UGC playlists and ~25% online MAUs contribute content. NetEase Cloud Music has developed similar business model as TME with revenue generated by music subs (33%), ads (21%), live streaming (46%).

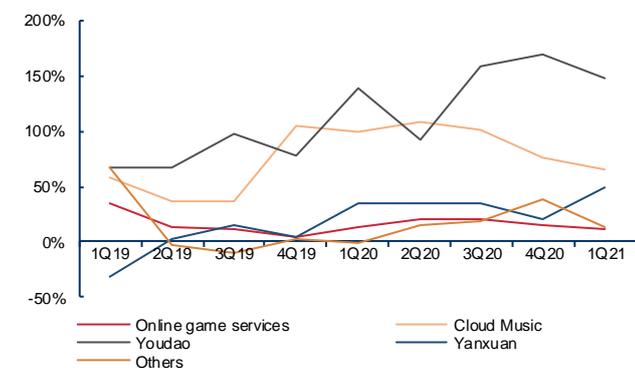
NetEase’s separately listed education biz, Youdao, monetizes from online courses, learning products, and online marketing services. NetEase’s other innovative business include e-commerce (Yanxuan), email, CC live streaming, and ads. While NetEase refocused on games since 2019, its other businesses might unlock its TAM in the long run if executed well.

Figure 12: NetEase’s businesses matrix



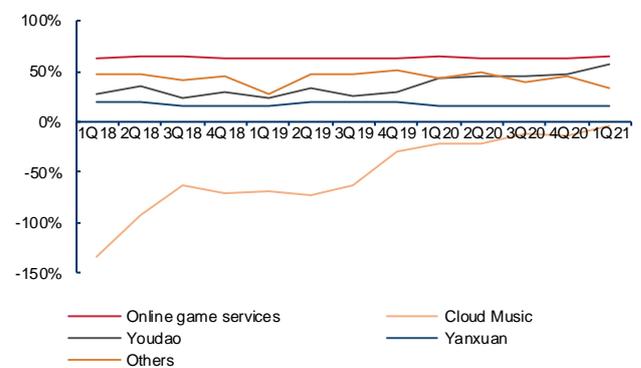
Source: Company data, SensorTower, QuestMobile, Cloud Village prospectus, Youdao
 Note: 1) According to SensorTower; 2) According to QuestMobile

Figure 13: Rev YoY growth by segment



Source: Company data

Figure 14: GPM trend by segment



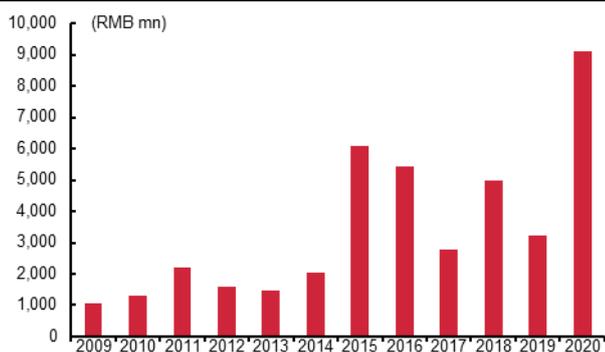
Source: Company data

A defensive name among market uncertainties

NetEase has generated stable OCF and remained net cash position in the past few years, primarily due to its strong ability to sustain long lifecycles for its top games. As its education and music businesses seek independent financing, we believe NetEase's financial position is further strengthening.

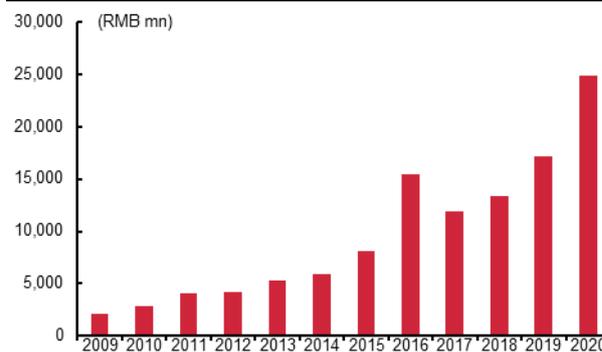
We believe NetEase is a defensive name among the market uncertainties, considering its strong game pipeline, stable cash flow from long-lifecycle games, and attractive valuation. Its enhancing monetization from NetEase Cloud Music would further bring upside, backed by increasing paying ratio and social entertainment rev.

Figure 15: NetEase's cash position



Source: Company data

Figure 16: NetEase's OCF



Source: Company data

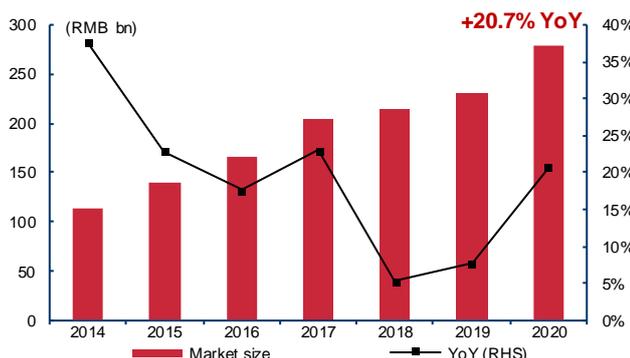
Investment Summary

Differiating itself with innovations and long-lifecycle games

Well-positioned to surf game premiumization tailwinds

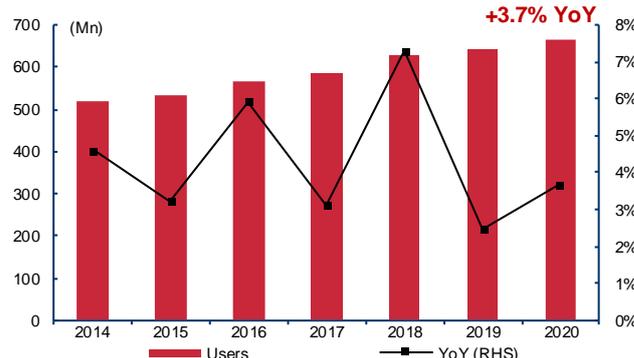
We expect game industry growth to be driven by product cycle and overseas expansion, as GPC reports China's gaming population growth tapering off in 2020. ARPU might see short-term volatility amid tightening regulations on in-game purchase. However, China's game ARPU still lags behind developed countries. Despite the high base in 2020, Newzoo anticipates China's game industry to further grow to US\$45.6bn in 2021E, while the global market would decrease by 1.1%.

Figure 17: China game industry reaccelerating in 2020



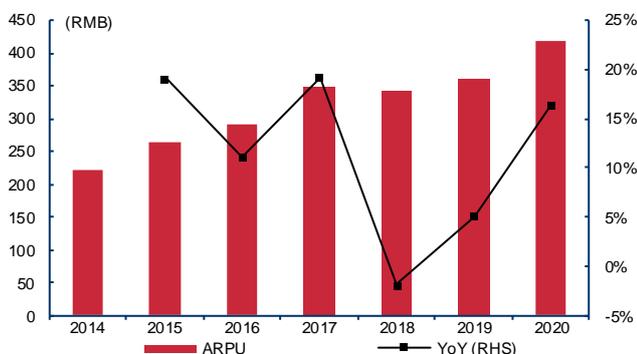
Source: GPC, Gamma Data

Figure 18: China's gamer population near saturation



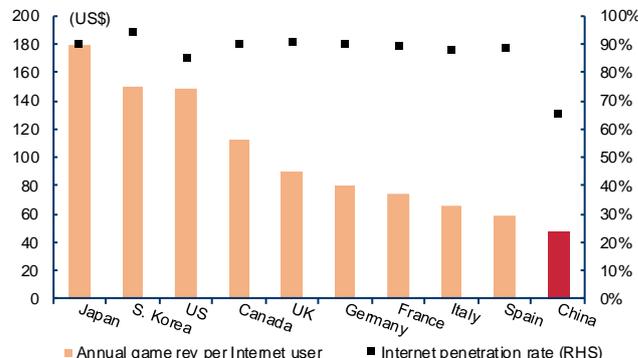
Source: GPC, Gamma Data

Figure 19: ARPU as primary driver for China game



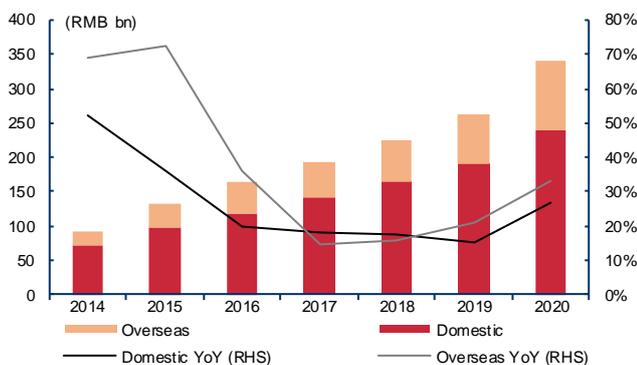
Source: GPC, Gamma Data

Figure 20: Game rev/ internet population



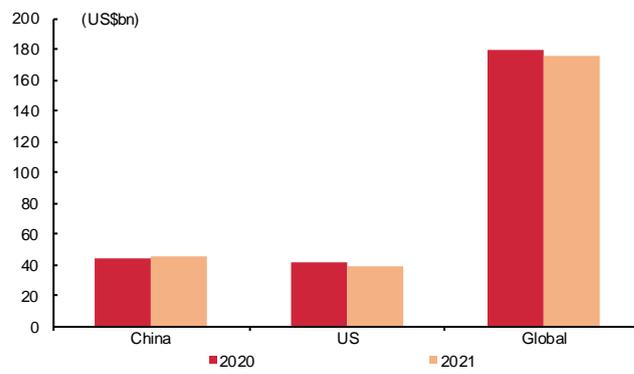
Source: Newzoo

Figure 21: China's self-developed game revenue



Source: GPC, Gamma Data

Figure 22: China game to continue growth in 2021E

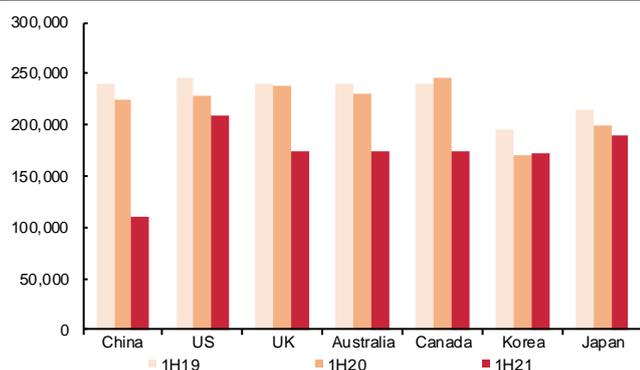


Source: Newzoo

We anticipate the major trends in the game industry in the near term to be: **1) game premiumization, 2) stepping-up overseas expansion, 3) stable competition landscape with duopoly; and 4) heightened focus on minors protection.**

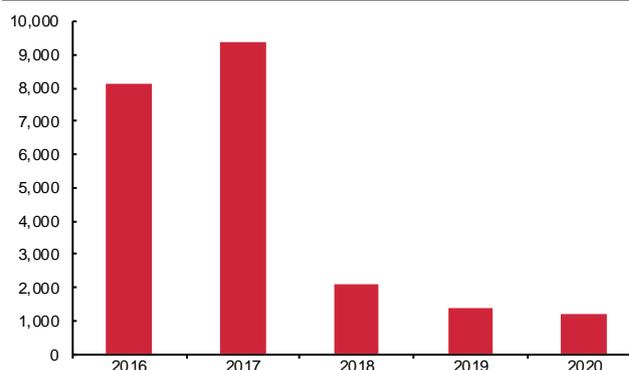
We expect top-tier players and emerging boutique to benefit from game premiumization. The premiumization trend is substantiated by limited game licenses, slower gaming population growth, and technology advancement. We believe game development will require higher investment and longer production cycle, pressuring long-tail CPs.

Figure 23: Number of mobile games in App Store



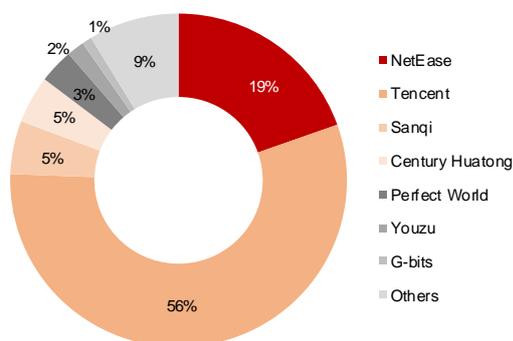
Source: Qimai

Figure 24: Number of approved game licenses



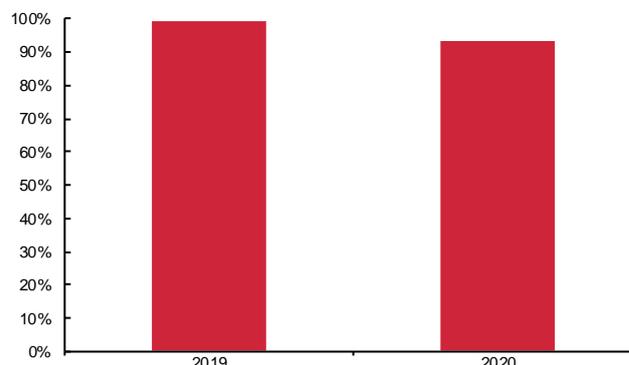
Source: National Radio and Television Administration

Figure 25: China game industry market share in 2020



Source: Forward – The Economist
Note: In terms of game revenue

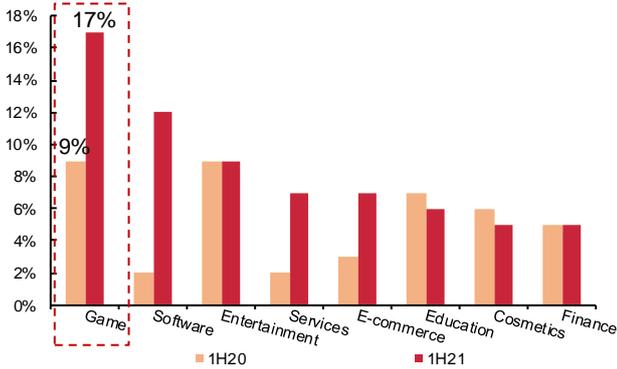
Figure 26: China game industry CR10



Source: Forward – The Economist

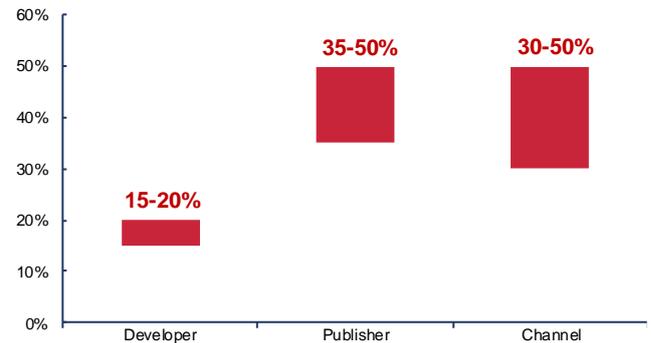
Potential higher rev sharing for CPs in the long run. Historically, publishers (35-50%) and traffic channels (30% for iOS and 50% for Android) have high bargaining power, while game developers' revenue sharing is cut down to 15-20%. As game industry values more on game quality, we expect developers rev sharing scheme to climb in the long term.

Figure 27: Game industry +8ppts contribution to China total ads in 1H21, YoY



Source: App Growing

Figure 28: Game developers typically sharing only 15-20% of total revenue



Source: Industry data, CMBIS

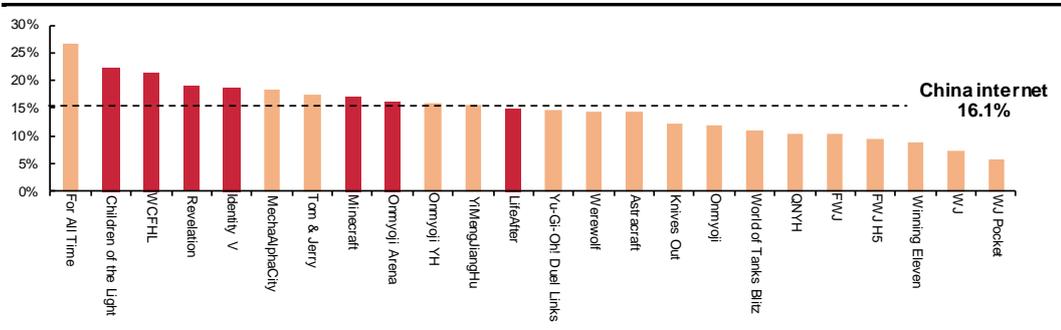
Figure 29: Channel rev sharing in China

Platform	Channel	Model	Channel rev sharing
iOS	App Store	Cooperation	30%, 15% rev sharing for app developers with annual rev <US\$1mn
	ByteDance	Traffic	40-60%
	Tencent Guandiantong	Traffic	40-60%
	Other traffic portals	Traffic	40-60%
Android	Mobile Hardcore Alliance	Cooperation	50%
	- Huawei		- Game developers aiming overseas: 2:8 rev sharing in 2021, 3:7 in 2022
	- VIVO, OPPO		- 0% for independent games with rev <RMB100k; 30% for rev <RMB500k
	TapTap	Cooperation	0% (except ad channels), 5% handling fee
	Alibaba 9you	Cooperation	50%
	Bilibili	Cooperation	50%
	Yingongbao	Cooperation	50%
	Official website	-	0%
	ByteDance	Traffic	40-60%
	Tencent Guandiantong	Traffic	40-60%
Other platforms	Traffic	40-60%	

Source: Jinghe, industry data, CMBIS

Manageable impact from tightening regulations on minor protection. Minor protection regulations have strengthened in China's game industry since 2018. We expect NetEase to reinforce restrictions for minor gamers with updated anti-addiction systems. However, we expect the financial impact would be manageable, given that minor players accounted for < 1% of China game grossing for NetEase, per mgmt. As for cross check, 10%/12% of gamers of NetEase's top titles FWJ/ Onmyoji were minors in Mar 2021, below industry average, according to Quest Mobile.

Figure 30: Percentage of minors for NetEase's top games



Source: QuestMobile, CNNIC

Strong self-development capabilities supporting innovative game pipeline

NetEase's middle office supports its game innovations with advanced development and graphics capabilities. Compared to Tencent, NetEase focuses more on self-developed games than investment in established workshops. NetEase has two self-developed engines, NeoX (20+ patents) and Messiah (3D games) that supports its games like Knives Out. Its re-using rate of graphics is above 85%.

By leveraging its star workshops (50+) and overseas investment, NetEase delivers sustainable high-quality production. Its PC game Naraka in pipeline was developed by a 24 workshop <二十四工作室> that developed Liu Xing Hu Die Jian <流星蝴蝶劍>, and its Harry Potter IP game was developed by the same workshop of Onmyoji series.

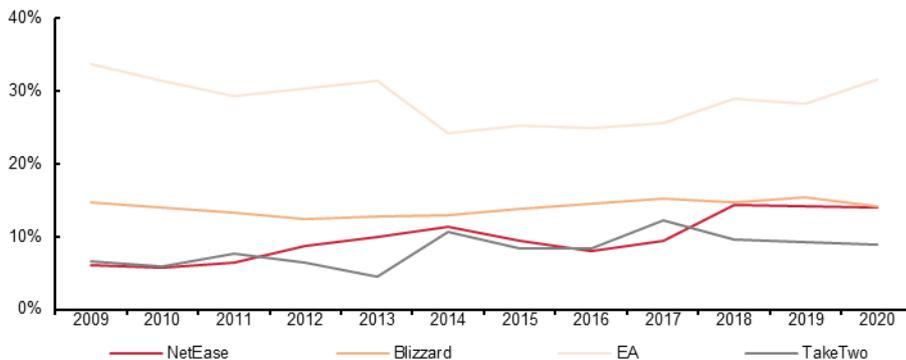
NetEase's R&D ratio has been steadily increasing in the past-few years, climbing up to overseas developers of AAA PC games. We expect NetEase to strengthen game development with stable R&D ratio, to capture the future cloud gaming tailwinds.

Figure 31: NetEase's game workshop investment

Country	Workshop	Time	Amount	Game
Finland	Reforged Studios	Oct-15		
US	Niantic	Nov-17	US\$200mn	Pokemon Go
UK	Jumpship	Jul-18	US\$100mn	Somerville
US	Bungie	Jun-18		Destiny (1,2), Halo,
UK	Improbable	Jul-18		SpatialOS cloud computing
US	Second Dinner	Jan-19	US\$30mn	Marvel IP games
France	Quantic Dream	Jan-19	US\$50mn	Heavy Rain, Detroit: Become Human
Canada	Behavior Interactive	Jul-19		Dead by Daylight
UK	Bossa Studios	Nov-19		Worlds Adrift
UK	Codemasters	Jul-20		DiRT

Source: Company data, CMBIS

Figure 32: NetEase's R&D ratio measuring up to Blizzard



Source: Bloomberg

Stable cash flow from valuable IP and long-lifecycle game operation

NetEase demonstrates strong capabilities in long-term game IP development. Four of the five NetEase games that ranked in Top 20 in terms of China's iOS billings in 1H21 were launched in 2015-16, according to Qimai. NetEase has separate business unit to operate games with stable ROI & top-tier content. The stable billing from long-lifecycle games supports NetEase with stable cash flow and foundation to explore into new genres.

NetEase develops its game IP through 1) new games (different genre/devices) and expansion pieces, 2) cooperation with other games and IPs of similar themes, 3) C2C transaction on Treasure Pavilion (藏宝阁) to preserve account value and increase gamer LTV, and 4) user engagement through non-game channels (e.g., Onmyoji's outfit design, movies, action figures, etc.)

We believe NetEase has ample upside to continuously monetize its existing IP and develop new titles. iResearch valued Onmyoji at RMB70.2bn in 2020 (89%/ 9%/ 2% from games/ pan-entertainment/ peripheral), with 66.3% of such value yet to be monetized. Besides, we expect NetEase to leverage its advantages in MMORPG category for mobile adaptations (e.g., NiShuiHan Mobile) and new genres expansion (e.g., Amnesic Idols).

Figure 33: NetEase's long-lived MMORPG IPs

IP	Games
Westward Journey	2001, Westward Journey Online (PC) <大话西游Online> 2002, Westward Journey Online II (PC) <大话西游Online II> 2013, New Westward Journey 2 (PC) <新大话西游2> 2015, Westward Journey (mobile) <大话西游>
FWJ	2004, Fantasy Westward Journey (PC) <梦幻西游> 2013, Fantasy Westward Journey 2 (PC) <梦幻西游2>, FWJ Pocket Version (mobile) <梦幻西游口袋版> 2015, Fantasy Westward Journey (mobile) <梦幻西游> 2019, Fantasy Westward Journey 3D (mobile) <梦幻西游三维版>
QianNvYouHun	2020, Fantasy Westward Journey H5 <梦幻西游网页版> 2009, QianNvYouHun (PC) <倩女幽魂> 2015, New QianNvYouHun (PC) <新倩女幽魂> 2016, QianNvYouHun (mobile) <倩女幽魂> 2021 or later: Amnesic Idols (mobile) <失忆偶像出道中>
TianXia	2000, TianXia (PC) <天下> (individual game, later acquired by NetEase) 2008, TianXia 2 (PC) <天下2> 2016, TianXia 3 (PC) <天下3> 2014, TianXia HD (mobile) <天下HD> 2016, TianXia (mobile) <天下>
DaTang	2006, DaTangHaoXia (PC) <大唐豪侠> 2014, DaTangWuShuang (PC) <大唐无双> 2016, DaTangWuShuang (mobile) <大唐无双>
ZhenMoQu	2015, ZhenMoQu (PC) <镇魔曲> 2017, ZhenMoQu (mobile) <镇魔曲>
Revelation	2016, Revelation Online (PC) <天谕> 2021, Revelation (mobile) <天谕>
NiShuiHan	2018, NiShuiHan (PC) <逆水寒> 2019, Meeting NiShuiHan (mobile) <遇见逆水寒> 2021 or later: NiShuiHan (mobile) <逆水寒> (first beta testing in Aug 2021)

Source: Company data, CMBIS

Figure 34: Top 20 games in terms of China's iOS billings in 1H21

Ranking	Name	Company	Type	Launched date
1	King of Glory <王者榮耀>	Tencent	MOBA	28-Oct-15
2	Peacekeeper Elite <和平精英>	Tencent	Battle royale	5-Feb-18
3	FWJ	NetEase	MMORPG	25-Mar-15
4	Three Kingdoms Tactics <三國志 戰略版>	Alibaba (LingXi Games)	SLG	19-Sep-19
5	Moonlight Blade <天涯明月刀>	Tencent	MMORPG	15-Oct-20
6	Genshin Impact <原神>	Mihoyo	ARPG	24-Sep-20
7	Rise of Kingdoms <萬國覺醒>	Lilith	SLG	22-Sep-20
8	Onmyoji	NetEase	Turn-based RPG	1-Sep-16
9	WJ	NetEase	MMORPG	9-Sep-15
10	Infinite Borders	NetEase	SLG	20-Oct-15
11	CrossFire: Legends <穿越火線 槍戰王者>	Tencent	FPS	3-Dec-15
12	YiNianXiaoYao <一念逍遙>	LeiTing Games	RPG	30-Jan-21
13	ShenWu 4 <神武4>	Duoyi	SLG	23-Nov-17
14	Naruto <火影忍者>	Tencent	ARPG	7-Jan-16
15	Revelation <天諭>	NetEase	MMORPG	4-Jan-21
16	GKART <QQ飛車>	Tencent	Racing	27-Dec-17
17	CODM	Tencent	FPS	24-Dec-20
18	Happy Poker <歡樂斗地主>	Tencent	Card	8-Aug-13
19	WenDao <問道>	LeiTing Games	Turn-based RPG	20-Apr-16
20	One Peace: Bloodline <航海王熱血航線>	ByteDance (ZhaoXiGuangNian)	ARPG	21-Apr-21

Source: Qimai

Figure 35: NetEase's all-around development of Onmyoji IP

Onmyoji-oriented game series



Operations to extend IP life cycle

Onmyoji x Japanese comics	Onmyoji x Other Games	Fan-designed Outfits	Transact in Treasure Pavilion
<ul style="list-style-type: none"> Nura: Rise of the Yokai Clan (2017) Mononoke (2018) Hozuki's Coolheadedness (2018) Inuyasha (2018-2019) Bleach (2019) Demon Slayer: Kimetsu no Yaiba (2021) Jujutsu Kaisen (2021) 	<p>Onmyoji's character Yoto Hime in...</p>  <p>Youzu's MMO: Phantoms Tang Dynasty</p>  <p>NetEase's battle royale: Naraka</p>	 <ul style="list-style-type: none"> Annual event since 2017 Top outfits selected with voting Designers rewarded with prize money and rev sharing 	<ol style="list-style-type: none"> Record the account to sell Set price and listing period, and then list the account 24-hour public notification period, no transaction Other players can directly purchase on Treasure Pavilion 3-day inspection period after the order confirmation Seller receive money in NetEase Pay
Attract new players & reactivate dormant players		Increase engagement	Preserve account value

Source: Company data

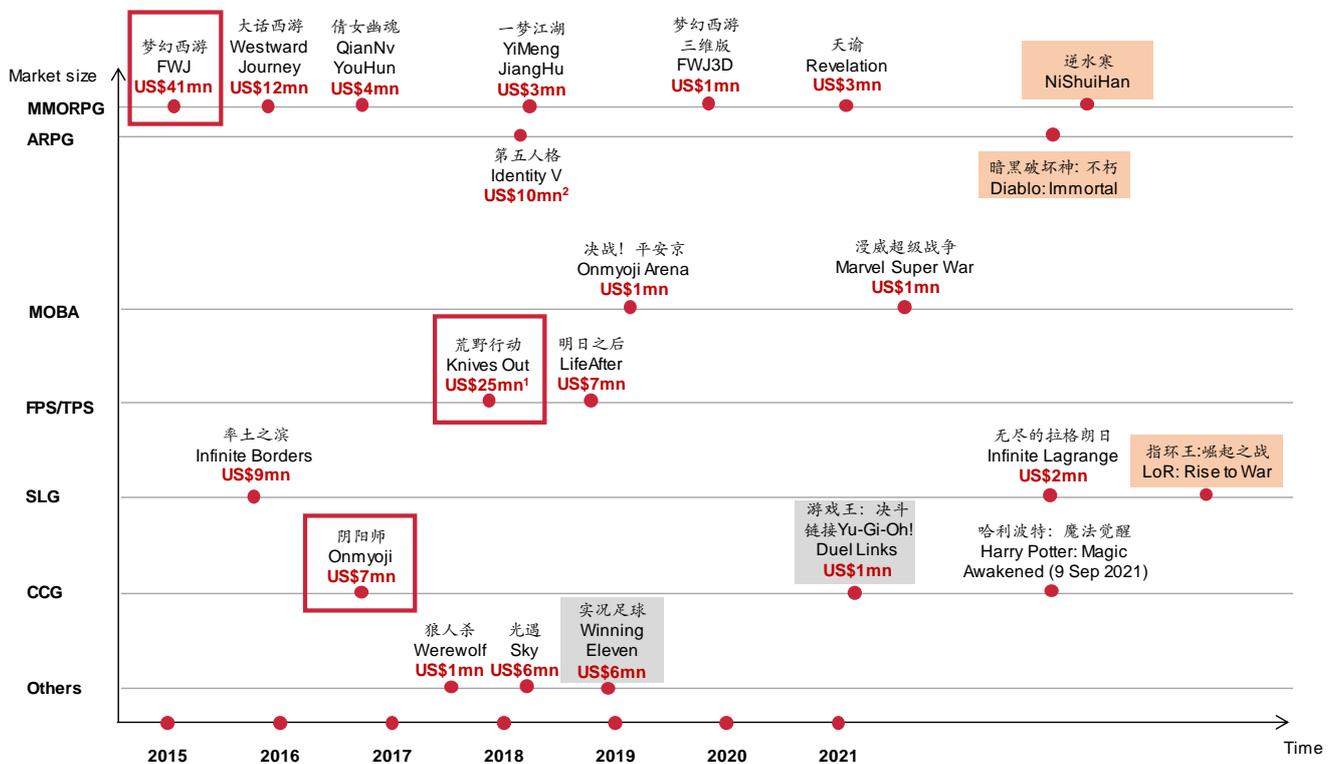
Moving into strong game pipeline and overseas potential

Mobile: strengthening domestic leadership backed by new launches

NetEase has strong mobile pipeline in 2021-2022 to strengthen its market position, with focus on IP titles and mobile versions of MMORPG. Its IP game Harry Potter: Magic Awaken <哈利波特: 魔法觉醒> ranked Top 1 in grossing and downloads in China upon launching on 9 Sep 2021. Diablo: Immortal is also highly anticipated with popular PC series. The mobile version of MMORPG Revelation <天谕> generated US\$4mn monthly grossing in iOS billing in Jun 2021, and we suggest to eye on the mobile version of NiShuiHan <逆水寒> which is expected to bring further upside.

We forecast that NetEase's mobile game revenue would grow at 12% in 2021 given high base in FY21 and 16% CAGR in 2020-23E, to RMB65bn and 56% rev mix. We expect the focus on premium games will continue to result in high R&D ratio, while the gradual shift to 30/70% rev sharing may benefit top-tier game developers. As a result, we expect mobile game GPM to increase to 60.7% in 2023E.

Figure 36: NetEase mobile game in Aug 2021 iOS billings and 2021-2022 pipeline



Source: Company data, SensorTower

Note: 1) US\$24mn generated overseas; 2) US\$7mn generated overseas; 3) published (not developed) games denoted in grey; 4) games in pipeline denoted in orange

Figure 37: NetEase's mobile games in pipeline

Game	Type	(Expected) release	Pre-order ¹	Details
Diablo: Immortal <暗黑破坏神: 不朽>	ARPG	2022	1.62mn	Based on Blizzard's PC/console game; beta tested on 15 Jul 2021
Harry Potter: Magic Awaken <哈利波特: 魔法觉醒>	RPG	9 Sep 2021	0.69mn	Harry Potter IP game
EVE Echoes <星战前夜: 无烬星河>	MMORPG	5 Aug 2021	0.63mn	Based on Crowd Control Production's EVE
Project ATLAS <代号: ATLAS>	RPG		0.32mn	Beta tested in Jun 2021
Mission Zero <零号任务>	Asymmetric ARPG (2v4)	1Q22E	0.20mn	Beta tested in Aug 2021
JueDuiYanYi <绝对演绎>	Woman		0.15mn	
Onmyoji Idol Project	RPG		0.15mn	
Frostpunk: Rise of the City <冰汽时代: 最后的家园>	SLG	4Q21E	0.14mn	Based on Steam game
XingHaiQiuSheng <星海求生>	Sandbox RPG		0.12mn	
Racing Master <巅峰极速>	Racing		0.10mn	Cooperating with Codemasters, UK's racing game publisher
Amnesic Idols <失忆偶像出道中>	Romance		0.13mn	Based on New QianNvYouHun IP
ChaoFanXianFeng <超凡先锋>	RPG		70k	Beta tested in Jun 2021
Onmyoji: Kindergarten <阴阳师: 妖怪小班>	Party game		70k	Beta tested in Jul 2021
YouShaQi Fair Tale <有杀气童话2>	MMORPG	29 Jul 2021	70k	
Luna's Labyrinth <月神的迷宫>	Roguelike	27 Jul 2021	70k	
War Howls <战争怒吼>	RTS		60k	Beta tested in May 2021
Infinite Lagrange <无尽的拉格朗日>	SLG	18 Aug 2021	60k	
The Untamed <陈情令>	RPG		50k	Based on Chinese novel & drama
Eggy Party <蛋仔派对>	Battle royal racing		40k	Beta tested in Jun 2021
Trinity Gears <湮灭效应>			40k	
Yige Effect <伊格效应>	RPG		40k	
Project Ragnarok <代号: 诸神黄昏>	Open world RPG		40k	
Dawn of Titans <泰坦黎明>	RTS		40k	Based on Zynga's game
NiShuiHan <逆水寒>	MMORPG		30k	First beta testing in Aug 2021
Unknown Record <未知记录>	Text		20k	
Cells at Work! <工作细胞>	RPG		20k	Japanese anime IP game
Vikingard	SLG, RPG		20k	
YinShiLu <隐世录>	MMORPG		4k	
Stick Fight: The Game <抖斗火柴人>	ARPG		653	Adopted from physics-based Steam Game
Project Tokyo Dolls <东京偶像计划>	RPG		238	Card game launched by So-net Entertainment Taiwan
Three Kingdoms ZhuJiangLu <三国诛将录>	ARPG		137	
ZhanChunQiu <战春秋>	RPG		43	

Source: Company data, TapTap

Note: 1) Through TapTap, as of 23 Jul 2021

Figure 38: Major Chinese game producer pipelines

Company	Game	Type	Release	Pre-order ¹	Details
Tencent	LoL Mobile	MOBA	-	6.54mn	Top 1 MOBA端游
	DNF Mobile	RPG		1.42mn	
	Dawn Awakening <黎明觉醒>	SOC	2021	1.66mn	Lightspeed & Quantum Studio (developer of Peacekeeper Elite)
CMGE	Dynasty Warriors <真三国无双霸>	ARPG	5 Aug 2021	0.62mn	IP from Japan's Koei; distributed by Tencent
	All Star Battle <全明星激斗>	ARPG		0.03mn	SNK IP; distributed by ByteDance
	Legends of Sword and Fairy 7 <仙剑奇侠传 七>	MMORPG	15 Oct 2021	-	Based on PC game IP; available on multiple platforms
Perfect World	Tower of Fantasy <幻塔>	MMORPG		1.02mn	2021年战略级新品
Archosaur	Noah's Heart <诺亚之心>	MMORPG		0.26mn	Distributed by Tencent
EA	Apex Legends ²	FPS		2.01mn	Based on PC game

Source: Company data, TapTap

Note: 1) Through TapTap, as of 23 Jul 2021; 2) beta tested in India and Philippines

PC: premium production attracting hardcore players

We are bullish on NetEase's PC game revenue in 2021, backed by its blockbuster game Naraka Bladepoint. Naraka is a 60-people battle royale game empowered by Unity engine, and it has been in the Top 4 of best sellers chart since launching on 12 Aug 2021.

We see similar pre-launch testing results pattern for Naraka and PUBG. Naraka's peak concurrent player amounted to 149k/184k during Apr/Jun 2021 Steam testing (Top 3 & 4 in Steam history and Top 1 among Chinese games). PUBG beta tested in Mar 2017 and had 140k/189k/267k peak concurrent players in Apr/May/June 2017, according to Statista. Noted that PUBG sold 70mn copies in three years since launching (c. US\$1.6bn assuming 75% average Steam discount). Given similar testing data, we forecast Naraka's sales at RMB1bn in FY21E.

We expect NetEase's PC game revenue to increase by 11% in 2021 and 7% CAGR in 2020-23E to RMB20bn, 17% rev mix.

Figure 39: Naraka and PUBG's similar pattern in peak concurrent users on Steam upon beta testing



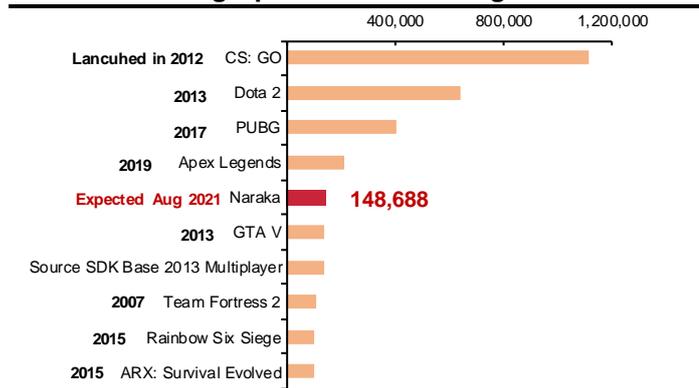
Source: Statista, Steam, Naraka

Figure 40: Naraka's concurrent Steam players steadily increasing since global release



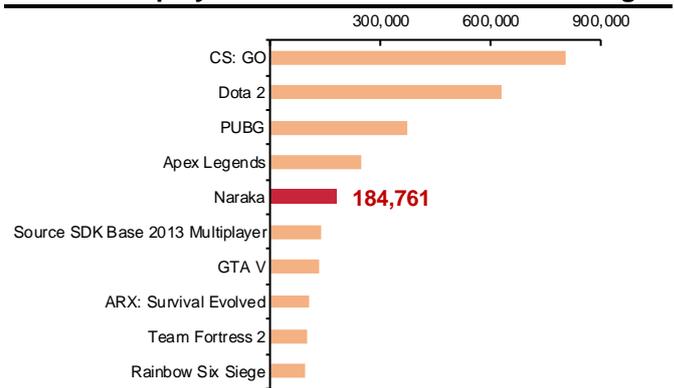
Source: Steamcharts

Figure 41: Naraka ranking Top 5 in concurrent players on stream during Apr 2021 beta testing



Source: Steam, Naraka

Figure 42: Naraka renewing Chinese stream game concurrent player record in Jun 2021 beta testing



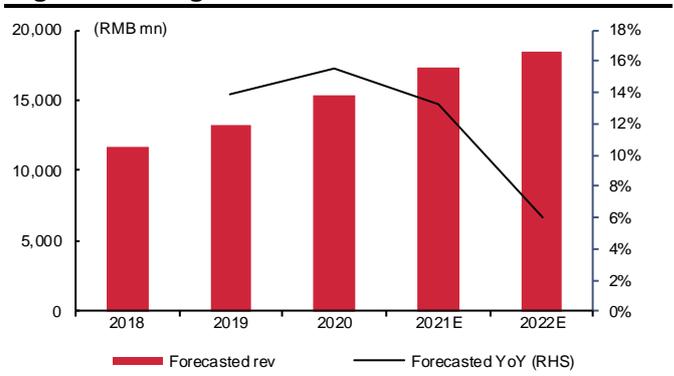
Source: Steam, Naraka

Figure 43: Naraka: Bladepoint in-game screenshot



Source: Naraka

Figure 44: PC game rev forecast



Source: Company data, Bloomberg, CMBIS

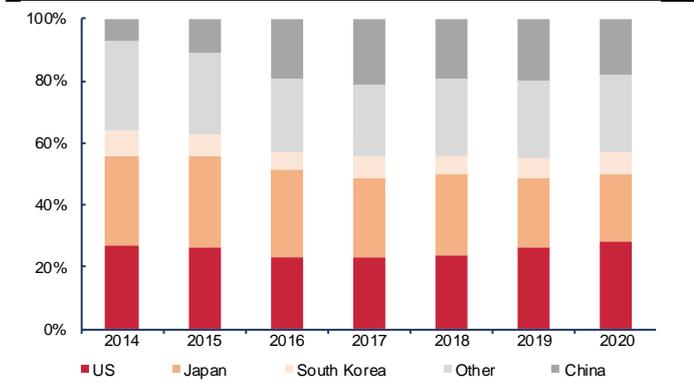
Overseas: IP games to unlock European & US markets

NetEase bore initial fruits in Japan and Korea expansion, and would step up overseas presence into European & US markets. Through localization and differentiated product offerings, NetEase’s Knives Out and Identity V gained tractions in Japan and Korea. Backed by popular global IPs (e.g. Harry Potter, Diablo), we believe NetEase can leverage such capabilities in other markets.

We are bullish on Harry Potter’s potential, with its eye-catching grossing after launch (TOP1 iOS rank in China, expecting to launch in overseas market later). Harry Potter: Magic Awaken is developed by NetEase and published by Portkey Games, Warner Bro's video game label that published a series of Harry Potter games. We expect Harry Potter: Magic Awaken to repeat or even exceed its success of previous IP games. Noted that Harry Potter: Hogwarts Mystery (2018, RPG) is of the same genre and was the top grossing mobile simulation adventure games worldwide in Apr 2020-Apr 2021, with US\$105mn revenue.

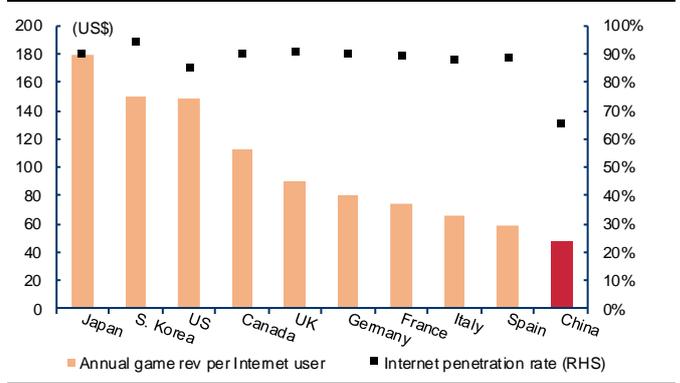
On top of that, we expect Diablo: Immortal to bring meaningful contribution in FY22E, backed by global audience and well-established gameplay.

Figure 45: Rev share of mobile game market by region



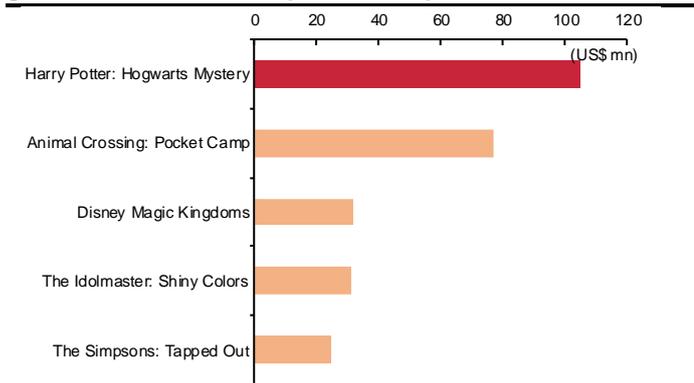
Source: Statista

Figure 46: Global mobile games ARPU forecast



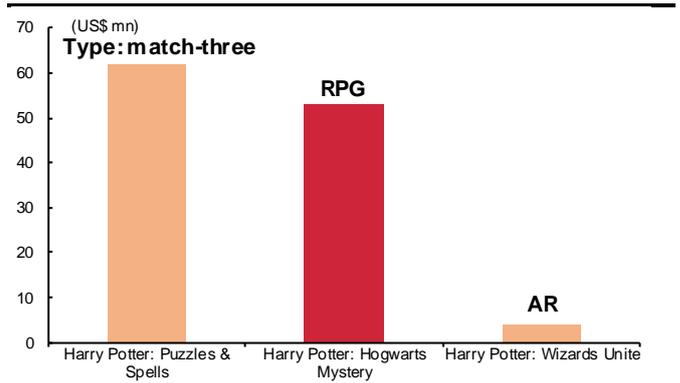
Source: Statista

Figure 47: Top grossing mobile simulation adventure games worldwide in Apr 2020 - Apr 2021



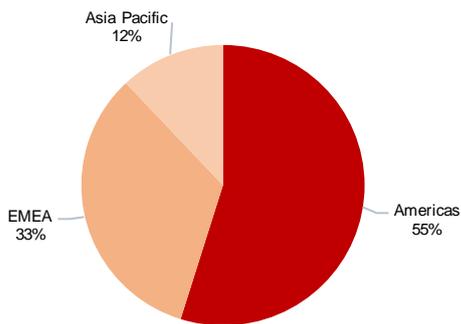
Source: SensorTower

Figure 48: Top grossing mobile Harry Potter games worldwide in 4Q20-1Q21



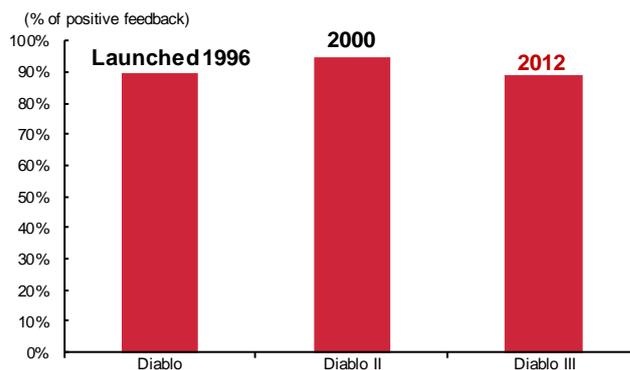
Source: SensorTower

Figure 49: Blizzard's (creator of Diablo) 2020 revenue by region



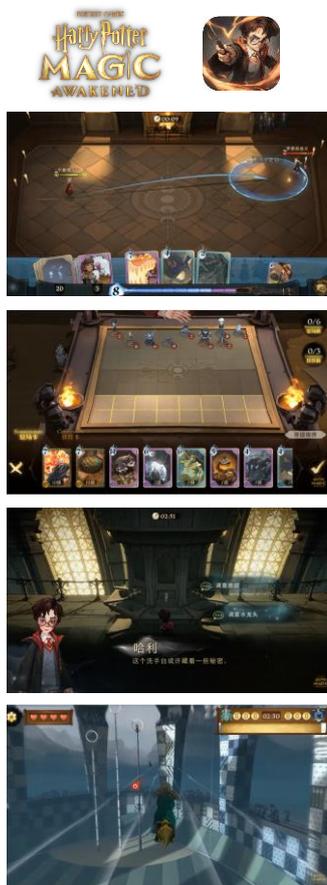
Source: Statista

Figure 50: Diablo: a well-known series waiting for a new title



Source: Google

Figure 51: Gameplay of Harry Potter: Magic Awaken and Harry Potter: Hogwarts Mystery



Fighting gameplay

- PVE or PVP (1V1, 3V3)
- Use spells and select the direction of attack

Chess mode
Auto chess

The Unknown Book
Experience plot of original Harry Potter series

Quidditch mode
Racing game



Collect Energy

1. Gain "Energy" through waiting or buying
2. Complete main storyline or side quests by spending Energy to click on highlighted figures

Dual club

1. Rock Paper Scissors mini game
2. Unlock advanced spells to deal more damage

Gobstone
Test knowledge for Harry Potter characters

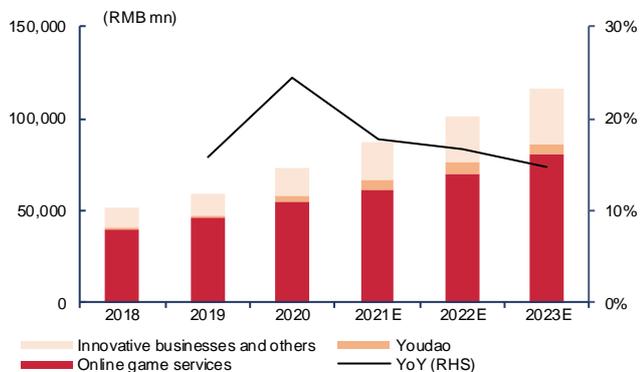
Quidditch
Drag token to each circle when it flashes green

Source: Harry Potter: Magic Awaken News, Harry Potter: Hogwarts Mystery

Expecting game revenue to grow at 14% CAGR in FY20-23E.

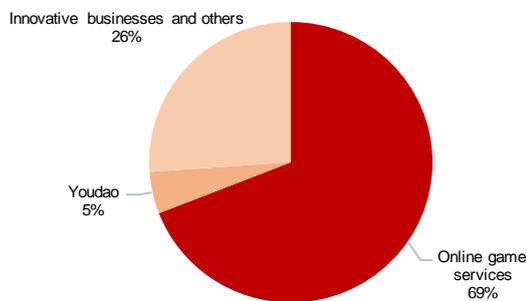
Backed by its strong pipeline and overseas expansion, we believe NetEase can deliver above-industry game growth. We expect its mobile/PC game revenue at 16%/7% CAGR in 2020-23E, with 56%/17% rev mix in 2023E.

Figure 52: Rev growth forecast



Source: Company data, CMBIS

Figure 53: FY23E rev mix forecast



Source: Company data, CMBIS

Innovative business unlocking TAM

Cloud music: unique and vibrant community with high visibility in paying ratio climb

NetEase Cloud Music may benefit from regulations of non-exclusive music copyright. While QuestMobile suggested aggregated users of top Chinese music apps peaked in 2019, we observed that NetEase Cloud Music delivered fastest user growth in 2014-2020, backed by its engaging community.

We expect paying ratio and social entertainment to be primary rev drivers in the short term. Compared with Spotify, NetEase Cloud Music and TME has ample upside in paying ratio (<10% vs. 44%) and monthly ARPPU (<RMB10 vs. RMB30). Besides, we estimate that NetEase only generated <10% of TME's social entertainment revenue in 2020 with users equaling to c.30% of TME's online music MAUs.

We anticipate NetEase's online music business to deliver 42% revenue CAGR in 2020-23E, with 33%/ 54%/ 38% CAGR in music subs/ ads/ social entertainment. We estimate paying ratio up to 15.6% in 2023E, +6.7ppts or 0.9mn net add of subscribers per quarter in 2020-23E. The non-exclusive copyright may benefit NetEase's online music GPM, which we expect to turn positive in 2021E.

Figure 54: NetEase Cloud Music's peer comparison, domestic (TME) and abroad (Spotify)

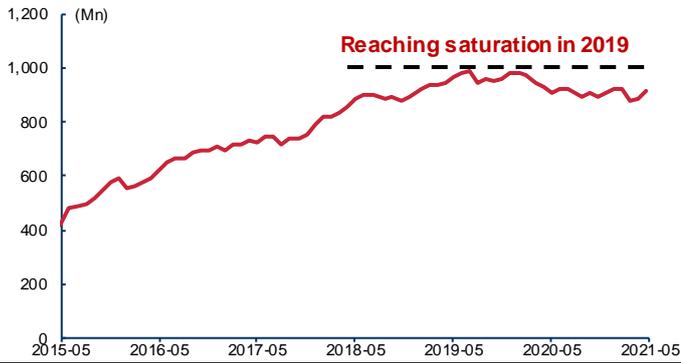
	NetEase	TME				Spotify
App	Cloud Music	Kugou Music	QQ Music	Kuwo Music	WeSing	Spotify
Business	Online music	Online music	Online music	Online music	Karaoke	Online music
Aug 2021 MAU	157mn ¹	250mn ¹	199mn ¹	187mn ¹	114mn ¹	365mn ²
YoY	+4%	+0%	+2%	+11%	-8%	+22%
Online music operating metrics						
Period	2020	2Q21			2Q21	
MAU	180.5mn ³	623mn			365mn	
Paying users	16mn ³	66.2mn			165mn (+20% YoY)	
Paying ratio	8.9% ³	10.6%			45.2%	
Mo. ARPPU	RMB8.4 ³	RMB9.0			RMB31.4 ⁴	
Mo. Non-sub rev/non-paying MAU	RMB0.5 ³	RMB0.7			RMB3.5 ⁴	
Social entertainment operating metrics						
Period	2020	2Q21			-	
MAU	-	209mn			-	
Paying users	0.3mn ³	11.0mn			-	
Paying ratio	-	5.3%			-	
Mo. ARPPU	RMB573.8 ³	RMB153.3			-	
2020 Financial metrics						
Revenue	RMB2.3bn	RMB29.2bn			RMB59.6bn ⁴	
YoY	211.2%	14.6%			16.5%	
GPM	-12.2%	7.3%			25.5%	
Adj. NPM	-32.0%	17.1%			-7.4%	

Source: QuestMobile, Company data

Note: 1) According to QuestMobile in Aug 2021; 2) according to Spotify, as of 2Q21; 3) according to Cloud Village prospectus, as of 2020; 4)

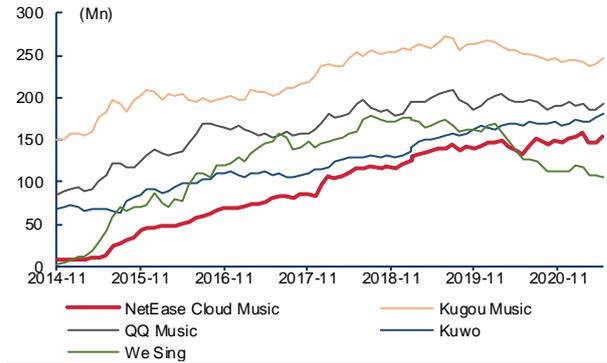
Euro: RMB = 7.56

Figure 55: Aggregating users of Top 7 China music apps (aggregated users overestimated due to overlap)



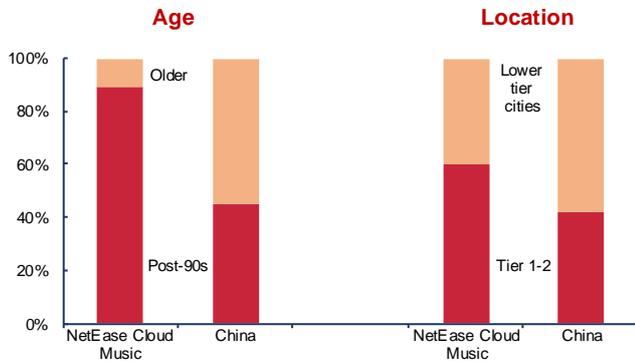
Source: QuestMobile
Note: Counting users of NetEase Cloud Music, TME apps, Migu & Xiami

Figure 56: NetEase Cloud Music delivering faster MAU growth than peers



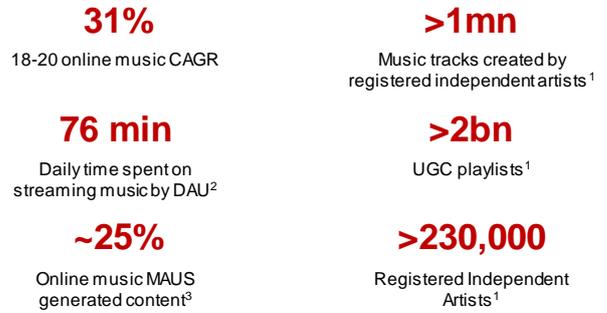
Source: QuestMobile

Figure 57: NetEase Cloud Music's user demography



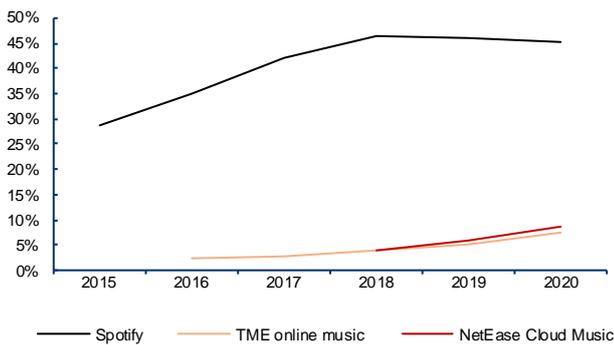
Source: QuestMobile, Cloud Village prospectus

Figure 58: NetEase Cloud Music's operating metrics



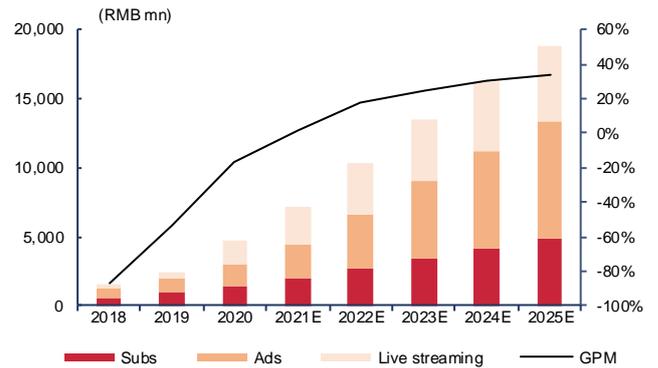
Source: Cloud Village prospectus
Note: 1) As of Dec 2020; 2) in 2020; 3) in Dec 2020

Figure 59: Paying ratio comparison



Source: Company data, Statista

Figure 60: NetEase Cloud Music revenue forecast



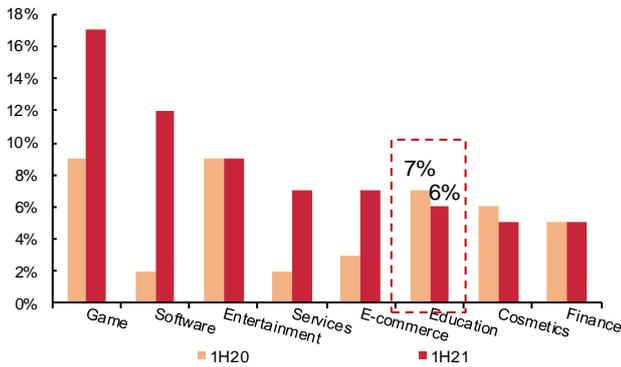
Source: Company data, CMBIS

Online education: expect improving S&M and shift from K-12 biz

Youdao is growing rapidly despite the regulation headwinds, and we expect NetEase to shift towards to adult and interest education to minimize risks. As of 2Q21, Youdao's net revenue from learning services/learning products grew 112%/139% YoY despite high base. 40% of NetEase's membership course revenue comes from adult education.

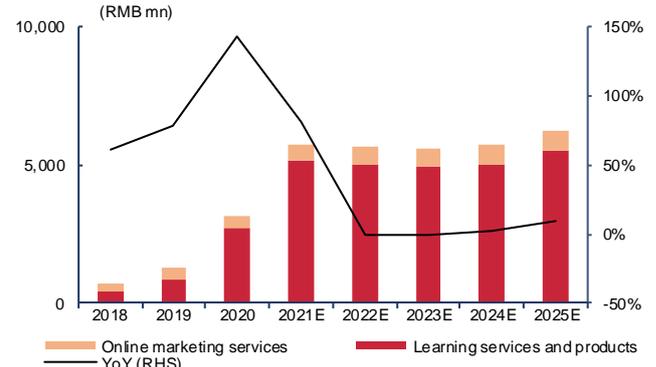
Youdao's GPM significantly improved to 52.3% in 2Q21 (vs. 45.2% in 2Q20), and we expect further margin upside with less S&M. The margin expansion starting in 2021 was primarily due to structural change of teacher salaries and operating leverage. Amid the current regulatory environment, we believe Youdao will see stringent S&M control and improve bottom line.

Figure 61: Education ads declining in % in 1H21



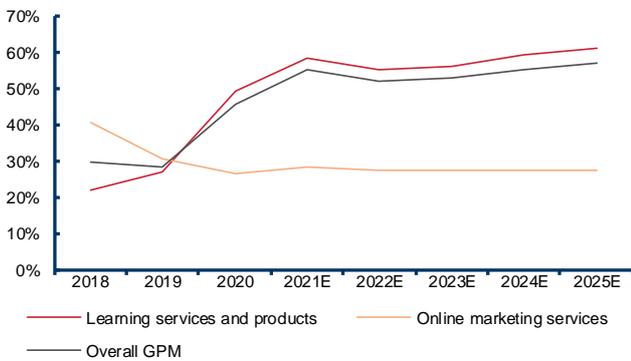
Source: App Growing

Figure 62: Youdao revenue forecast



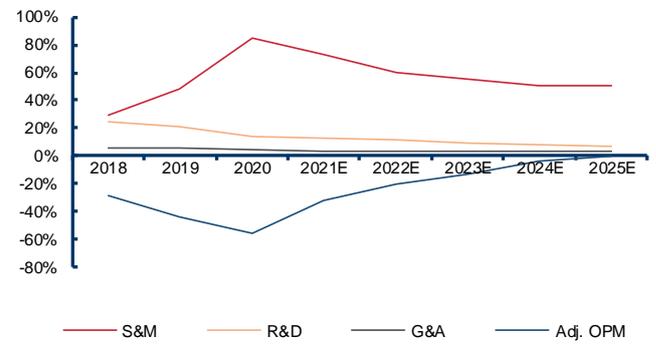
Source: Company data, CMBIS

Figure 63: Youdao GPM forecast



Source: Company data, CMBIS

Figure 64: Youdao expenses and margins forecast



Source: Company data, CMBIS

Others biz to diversify monetization

We believe NetEase’s other business can diversify monetization in the long term, with e-commerce as short-term driver. NetEase’s e-commerce business was boosted by the 618 campaigns, and its Yanxuan brand ranked Top1 in JD’s household & necessities sales.

NetEase’s live streaming business will continue to be an organic part of its game ecosystem. Focusing on NetEase games, CC Live Streaming draws in new gamers and increases user LTV through e-sports and entertainment events.

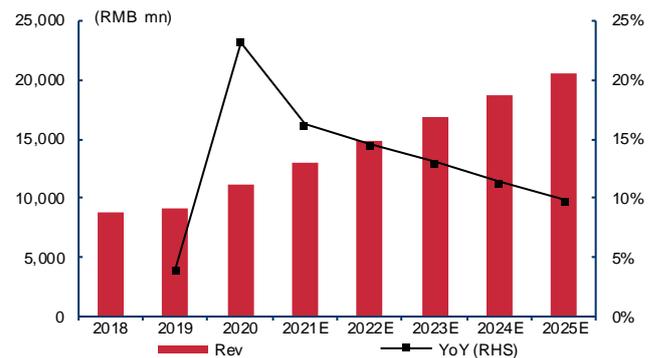
We expect NetEase’s e-commerce and other revenue to deliver 15% CAGR in 2020-23E.

Figure 65: Recommended games on CC live streaming



Source: CC live streaming website

Figure 66: Ads and other innovative biz rev forecast



Source: Company data, CMBIS

Financial Analysis

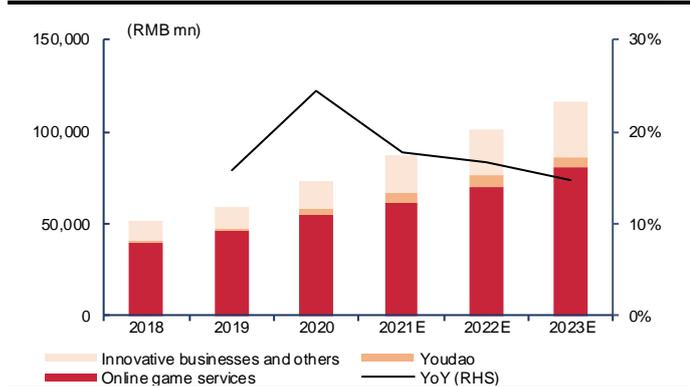
Revenue Breakdown

We forecast NetEase revenue to grow at 18%/ 17%/ 15% in FY21/22/23E, driven by strong game pipeline and overseas expansion. By segment, we expect games/ education/ innovative biz and others to deliver 14%/ 21%/ 24% rev CAGR in 2020-23E, with games still as the largest contributor.

Key topline drivers come from:

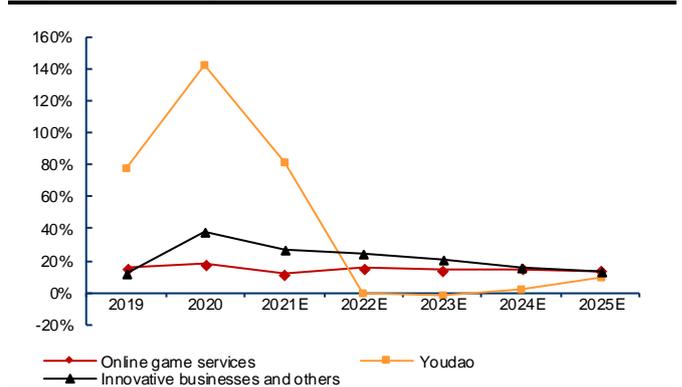
- 1) **Game:** forecasting 14% rev CAGR in FY20-23E, mainly driven by strong mobile and PC game pipeline and increasing contribution from overseas markets. We expect NetEase’s mobile/ PC game segment to deliver 16%/ 7% rev CAGR in the next three years, and overseas contribution up to 17% in 2023E.
- 2) **Innovative and other business:** We expect NetEase’s innovative and other business to be mainly driven by its online music business, backed by increasing paying ratio and ramping-up social entertainment revenue. We expect this segment to contribute 24% rev CAGR in the next three years and 26% rev mix in 2023E.

Figure 67: Rev estimates



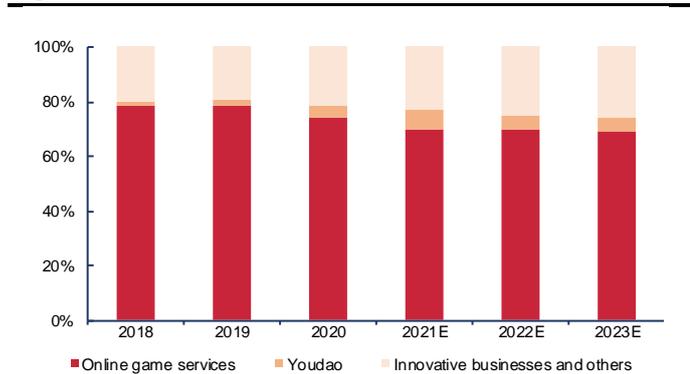
Source: Company data, CMBIS estimates

Figure 68: Rev growth breakdown



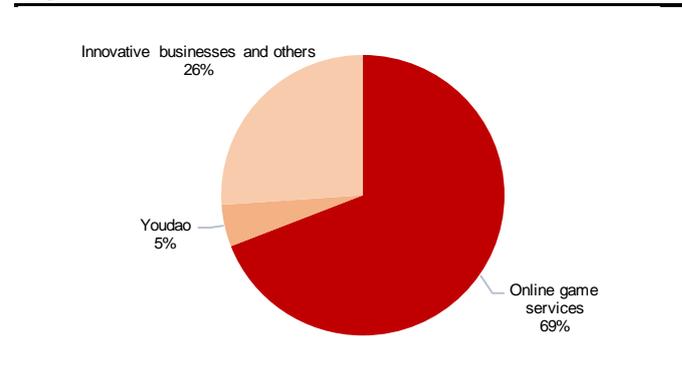
Source: Company data, CMBIS estimates

Figure 69: Rev mix trend



Source: Company data, CMBIS estimates

Figure 70: FY23E revenue breakdown



Source: Company data, CMBIS estimates

Income Statement

We expect NetEase to deliver 17% adj. net profit CAGR in 2020-23E, thanks to improving GPM in mobile games and music, as well as lower S&M in education business.

We anticipate its GPM stable at 53% in FY21-23E, in which lower game mix offset by higher bargaining power towards developers and benefits from non-exclusive music copyright regulation.

We expect stable R&D ratio due to heightened investment during the game premiumization trend, while lower S&M for education biz with the recent regulation shift. As such, we expect its S&M/ R&D/ G&A expense ratio at 14%/ 15% / 5% in FY23E.

Overall, we expect NetEase's adj. net income to reach RMB24bn in FY23E, with adj. net margin at 20%.

Figure 71: Income statement

RMB mn, Dec-YE	FY18	FY19	FY20	FY21E	FY22E	FY23E
Net revenue	51,179	59,241	73,667	86,754	101,285	116,154
Cost of revenue	(23,832)	(27,686)	(34,684)	(40,654)	(47,623)	(54,413)
Gross profit	27,346	31,555	38,983	46,100	53,662	61,741
R&D exp	(7,378)	(8,413)	(10,369)	(12,759)	(14,721)	(16,882)
S&M exp	(6,912)	(6,221)	(10,704)	(12,899)	(14,455)	(16,577)
G&A exp	(3,079)	(3,130)	(3,372)	(4,184)	(5,048)	(5,789)
Operationg (loss)/profit	9,977	13,791	14,538	16,259	19,439	22,494
Other income	1,099	2,593	834	2,214	2,312	2,639
Profit before income tax	11,077	16,383	15,372	18,473	21,751	25,133
Income taxes (expense)/credit	(2,461)	(2,915)	(3,042)	(3,945)	(4,841)	(5,594)
Profit for the year	8,616	13,469	12,330	14,528	16,910	19,540
Deemed dividends of redeemable noncontrolling interests	(248)	(272)	(787)	(580)	(400)	(400)
Loss attributable to NCI	(77)	78	520	542	605	605
Net loss attributable to Zhihu Inc.'s shareholders	8,291	13,275	12,063	14,490	17,115	19,745
Adj. net profit	10,761	15,663	14,706	17,453	20,660	23,810
Margin Analysis						
Gross margin	53%	53%	53%	53%	53%	53%
Operating margin	19%	23%	20%	19%	19%	19%
Adj. net margin	21%	26%	20%	20%	20%	20%
Growth Analysis						
Revenue		16%	24%	18%	17%	15%
Gross profit		15%	24%	18%	16%	15%
Operating profit		38%	5%	12%	20%	16%
Adj. net profit		46%	-6%	19%	18%	15%

Source: Company data, CMBIS estimates

Balance Sheet

According to our estimates of profit before taxation and change in working capital, NetEase has solid operating cash flow & financing cash flow in supporting CAPEX in the next three years. We expect NetEase to hold RMB15bn/RMB28bn/RMB49bn cash and cash equivalent as of 31 Dec of 2021/22/23E.

Figure 72: Balance Sheet

RMB mn, Dec-YE	FY18	FY19	FY20	FY21E	FY22E	FY23E
Non-current assets	18,252	27,019	34,044	33,259	34,374	34,374
Property and equipment, net	4,672	4,622	4,555	3,771	4,886	4,886
Land use right, net	3,272	3,707	4,178	4,178	4,178	4,178
Time deposits	100	2,360	6,630	6,630	6,630	6,630
Others	10,209	16,330	18,680	18,680	18,680	18,680
Current assets	68,716	85,105	107,831	119,579	133,444	158,190
Cash and cash equivalents	4,977	3,246	9,117	15,075	27,943	48,667
Time deposits	32,900	53,487	71,079	78,187	78,187	78,187
Short-term investments	11,675	15,313	13,273	13,273	13,273	13,273
Other current asset	19,163	13,059	14,361	13,043	14,041	18,063
Current liabilities	35,109	38,243	46,743	47,861	53,391	59,798
Accounts payables and accrued liabilities	1,201	1,212	1,134	1,232	1,439	1,650
Salary and welfare payables	2,799	2,957	3,539	3,153	3,681	4,222
Short-term loan	13,659	16,828	19,505	21,455	23,601	25,961
Others	17,450	17,245	22,566	22,020	24,670	27,965
Non-current liabilities	442	839	1,337	1,337	1,337	1,337
Other long-term payable	393	457	624	624	624	624
Deferred tax liabilities	49	382	713	713	713	713
Total mezzanine equity and shareholders' equity	51,412	73,041	93,794	103,639	113,091	131,429

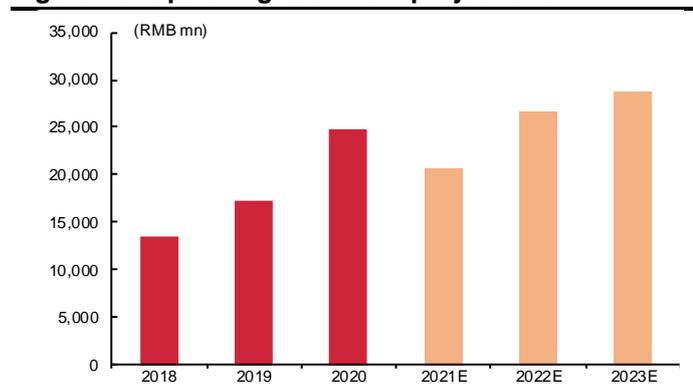
Source: Company data, CMBIS estimates

Cash Flow and Working Capital

Healthy operating cash flow ahead

With strong game pipeline, enhancing music monetization and stable margin, we expect NetEase to generate solid OCF in 2020-23E. Factoring effective working capital management, we expect NetEase to record RMB21bn/RMB26bn/RMB28bn OCF in FY21/22/23E.

Figure 73: Operating cash flow projections



Source: Company data, CMBIS estimates

Figure 74: Cash flow and working capital analysis

RMB mn, Dec-YE	FY18	FY19	FY20	FY21E	FY22E	FY23E
Cash Flow						
Operating cash flow	13,416	17,216	24,888	20,541	26,392	28,491
CAPEX	(6,886)	(3,329)	(3,290)	(1,818)	(4,461)	(4,656)
Others	(6,684)	(18,808)	(25,902)	(7,108)	0	0
Investing cash flow	(13,570)	(22,137)	(29,192)	(8,926)	(4,461)	(4,656)
Repurchase	(7,517)	11	(11,491)	(6,671)	(6,671)	0
Dividends	(1,440)	(8,841)	(4,280)	(936)	(4,538)	(5,471)
Others	10,544	9,913	25,685	1,950	2,146	2,360
Financing cash flow	1,587	1,083	9,913	(5,657)	(9,064)	(3,111)
Cash of discontinued operation, and cash held for sale	(537)	(1)	0	0	0	0
Cash at period end	9,669	6,397	12,169	18,126	30,994	51,719
Restricted cash	4,692	3,150	3,051	3,051	3,051	3,051
Cash and cash equivalents	4,977	3,246	9,117	15,075	27,943	48,667

Source: Company data, CMBIS estimates

Valuation

Investment Thesis

We initiate with BUY at SOTP-based TP of US\$123, implying 25x/22x FY22/23E PE. We believe NetEase could be relatively defensive and deliver solid growth with its strong 2021-2022 pipeline. NetEase's positive catalysts could be: 1) upcoming launch of highly-anticipated mobile games; and 2) regulation headwinds to lift.

Initiate with BUY

We adopted SOTP as our primary valuation method. Taking industry average as reference, we apply 12.5x FY22E EV/EBIT to its online game service, in line with industry average. We apply 1.5x/1.5x FY22E EV/Sales to its Youdao and innovative business, largely in line with the market average, yielding TP at US\$123.

Figure 75: SOTP valuation

Business (RMB bn)	'22E Rev	OP Margin	'22E EBIT	Methodology	Multiple	Stake	Value
Online game services	70.4	46.0%	32.4	EV/EBIT	12.5x	100%	405
Youdao	5.7	-20.2%	(1.1)	EV/Sales	1.5x	66%	6
Innovative businesses and others	25.2	-32.9%	(8.3)	EV/Sales	1.5x	100%	38
Enterprise Value							449
(+) Net Cash							88
Equity Value							537
Diluted Shares Outstanding (mn)							678
Price Target (US\$)							123

Source: CMBIS estimates

Note: FX = 6.45

We use DCF valuation to value NetEase as a crosscheck, as it is appropriate to apply the DCF method to game companies with stable free cash flows. Assuming a WACC of 10.1% and a terminal growth rate of 3%, our estimate TP is US\$124.

Figure 76: DCF valuation

DCF valuation (RMB mn)										
	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
EBIT	16,259	19,439	22,494	26,693	30,990	35,231	39,570	43,956	48,340	52,680
Tax	(3,945)	(4,841)	(5,594)	(6,623)	(7,681)	(8,103)	(9,101)	(10,110)	(11,118)	(12,116)
D&A	3,458	2,603	3,346	4,656	5,226	5,803	6,379	6,949	7,508	8,051
Working capital	485	2,386	25	2,722	1,521	1,825	2,190	2,628	3,153	3,784
CAPEX	(1,818)	(4,461)	(4,656)	(5,017)	(5,412)	(5,520)	(5,608)	(5,680)	(5,738)	(5,785)
FCF	14,439	15,126	15,615	22,432	24,645	29,236	33,430	37,743	42,145	46,614
FCF Growth		5%	3%	44%	10%	19%	14%	13%	12%	11%
Terminal Value										673,101
PV (FCF+ Terminal Value)	14,439	13,735	12,874	16,792	16,751	18,044	18,734	19,205	19,472	301,928

Assumptions

WACC	10.1%
Tax rate	23.0%
Risk free rate	3.2%
Cost of debt	0.0%
Beta	1.1
Market risk return	9.5%
Cost of equity	10.1%
Debt/Assets	0.0%
WACC	10.1%
Terminal growth rate	3.0%
Debt value	0

Equity Value

PV	451,974
minus: Net cash	88,132
minus: Minority Interest	0
Equity Value	540,105
Shares (mn)	678
Target Price (US\$) based on DCF	124

		WACC				
		8.1%	9.1%	10.1%	11.1%	12.1%
Growth	1.5%	143	125	112	101	92
	2.0%	150	130	115	103	94
	2.5%	159	136	119	106	96
	3.0%	168	142	124	109	99
	3.5%	180	150	129	113	101
	4.0%	195	159	135	117	104
	4.5%	214	170	142	122	108

Source: Company data, Bloomberg, CMBIS estimates

Note: FX = 6.45

Peers comparison

We select 24 game developers, two music companies, three online education companies, four e-commerce companies, and four live streaming companies for peer comparison.

We believe Tencent (700 HK) should be the most comparable one, given their leading position in game industry domestic and abroad. Recent regulations on game license and minor protection posed ST pressure on valuation multiples, but secular investment themes intact. Given most headwinds partly priced in, we think both NetEase and Tencent are trading at attractive valuation, especially considering NetEase's strong pipeline and defense provided by stable cash flow.

Figure 77: Peers valuation

Company	Ticker	Mkt cap (USD mn)	Currency	Price	CMBI Rating	CMBI TP	PE			PS			EV/EBITDA			FY0-2 EPS
							FY0	FY1	FY2	FY0	FY1	FY2	FY0	FY1	FY2	CAGR
NetEase	NTES US	56,825	USD	85	BUY	120	21.1	17.7	15.5	4.3	3.7	3.2	19.1	15.9	13.4	17%
Internet giants																
Tencent	700 HK	573,403	HKD	465	BUY	640	27.5	22.5	18.6	6.4	5.4	4.6	21.2	20.5	16.4	21%
Alibaba	BABA US	414,223	USD	152	BUY	285	15.9	13.3	11.1	2.9	2.4	2.0	19.1	13.9	10.6	19%
JD.com	JD US	117,579	USD	75	NA	NA	56.2	36.6	22.5	0.8	0.6	0.5	NA	46.6	25.0	55%
Sony	6758 JP	140,987	JPY	12,440	NA	NA	20.5	18.4	16.4	1.6	1.5	1.4	15.5	13.6	12.5	12%
Apple	AAPL US	2,345,796	USD	142	NA	NA	25.0	25.7	25.0	6.4	6.2	5.9	21.0	21.4	20.6	3%
Microsoft	MSFT US	2,130,622	USD	284	NA	NA	32.4	28.5	25.0	11.1	9.9	8.9	26.3	23.0	19.8	15%
Google	GOOGL US	1,813,734	USD	2,717	NA	NA	22.1	20.6	17.7	8.2	7.5	6.4	23.3	20.7	17.8	14%
Pinduoduo	PDD US	111,543	USD	89	BUY	175	NA	83.9	33.9	6.6	4.7	3.5	NA	NA	57.2	NA
Average							28.5	23.6	19.5	5.5	4.8	4.2	21.1	22.8	17.5	20%
Game																
XD Inc.	2400 HK	2,765	HKD	45	NA	NA	NA	NA	NA	6.2	4.7	3.8	NA	NA	84.2	NA
Tencent	700 HK	573,403	HKD	465	BUY	640	27.5	22.5	18.6	6.4	5.4	4.6	21.2	20.5	16.4	21%
Perfect World	002624 CH	4,390	CNY	15	BUY	49	17.1	11.3	9.5	2.6	2.2	1.9	16.4	10.0	8.2	32%
37 Interactive	002555 CH	6,888	CNY	20	BUY	30	16.5	13.4	11.6	2.6	2.2	1.9	12.6	9.9	8.8	19%
Activision Blizzard	ATVI US	59,362	USD	76	NA	NA	19.8	17.4	15.8	6.7	6.0	5.6	14.8	13.3	11.9	11%
Ubisoft	UBI FP	7,639	EUR	52	NA	NA	22.6	19.1	15.6	2.8	2.5	2.3	15.1	13.1	11.3	17%
Sony	6758 JP	140,987	JPY	12,440	NA	NA	20.5	18.4	16.4	1.6	1.5	1.4	15.5	13.6	12.5	12%
Nintendo	7974 JP	62,128	JPY	53,230	NA	NA	15.9	15.7	16.8	4.0	4.1	4.4	8.4	8.8	9.9	-3%
Electronic Arts	EA US	38,069	USD	134	NA	NA	19.9	18.1	16.1	5.1	4.7	4.4	15.5	13.8	12.0	13%
Average							20.0	17.0	15.0	4.2	3.7	3.4	14.9	12.9	19.5	15%
Music																
TME	TME US	12,017	USD	7	BUY	12	19.7	18.9	15.8	2.4	2.2	2.0	21.4	19.6	17.4	15%
Spotify	SPOT US	43,375	USD	227	NA	NA	NA	NA	NA	3.9	3.2	2.8	NA	NA	NA	NA
Average							19.7	18.9	15.8	3.1	2.7	2.4	21.4	19.6	17.4	15%
Online education																
Koolearn Tech	1797 HK	543	HKD	4	NA	NA	NA	NA	NA	3.6	3.7	NA	NA	NA	NA	NA
Gaotu Techedu	GOTU US	782	USD	3	NA	NA	NA	NA	11.0	0.5	0.5	0.4	NA	NA	1.6	NA
TAL Education Group	TAL US	2,889	USD	4	NA	NA	11.9	5.2	3.0	0.5	0.5	0.4	NA	5.3	2.3	93%
Average							11.9	5.2	7.0	1.6	1.6	0.4	NA	5.3	1.9	93%
E-commerce																
Alibaba	BABA US	414,223	USD	152	BUY	285	15.9	13.3	11.1	2.9	2.4	2.0	19.1	13.9	10.6	19%
JD.com	JD US	117,579	USD	75	NA	NA	56.2	36.6	22.5	0.8	0.6	0.5	NA	46.6	25.0	55%
Vipshop	VIPS US	7,682	USD	11	NA	NA	7.4	6.6	5.8	0.4	0.4	0.3	5.4	4.7	4.1	13%
Pinduoduo	PDD US	111,543	USD	89	BUY	175	NA	83.9	33.9	6.6	4.7	3.5	NA	NA	57.2	NA
Average							26.5	18.8	13.1	1.4	1.1	1.0	12.3	21.7	13.2	29%
Live streaming																
Momo	MOMO US	2,220	USD	11	HOLD	14	6.7	5.3	4.5	1.0	0.9	0.8	5.0	4.1	3.5	20%
Huya	HUYA US	1,923	USD	8	BUY	12	23.9	22.6	12.3	1.0	0.9	0.8	3.8	2.8	1.9	43%
Douyu	DOYU US	1,035	USD	3	NA	NA	NA	35.6	13.2	0.7	0.6	0.6	NA	NA	NA	NA
YY	YY US	4,355	USD	56	BUY	66	NA	67.1	30.2	1.7	1.4	1.2	NA	NA	13.7	NA
Average							15.3	21.2	10.0	0.9	0.8	0.7	4.4	3.5	2.7	31%
Average							21.1	18.7	14.5	3.5	3.1	2.7	15.3	14.7	14.9	22%

Source: Bloomberg

Note: Date as of 29 Sep 2021. XD Inc, YY and Pinduoduo are excluded as outliers for PE and EV/EBIT average.

Financial Summary

Income statement

YE 31 Dec (RMB mn)	FY19A	FY20A	FY21E	FY22E	FY23E
Revenues	59,241	73,667	86,754	101,285	116,154
Online game	46,423	54,609	60,845	70,400	80,237
Youdao	1,305	3,168	5,735	5,677	5,614
Others	11,514	15,891	20,174	25,209	30,303
COGS	(27,686)	(34,684)	(40,654)	(47,623)	(54,413)
Gross profit	31,555	38,983	46,100	53,662	61,741
S&M	(6,221)	(10,704)	(12,899)	(14,455)	(16,577)
R&D	(8,413)	(10,369)	(12,759)	(14,721)	(16,882)
G&A	(3,130)	(3,372)	(4,184)	(5,048)	(5,789)
Operating profit	13,791	14,538	16,259	19,439	22,494
Other income	2,593	834	2,214	2,312	2,639
Pre-tax Income	16,383	15,372	18,473	21,751	25,133
Income Tax	(2,915)	(3,042)	(3,945)	(4,841)	(5,594)
Net income after tax	13,469	12,330	14,528	16,910	19,540
Deemed dividends	(272)	(787)	(580)	(400)	(400)
Loss to NCI	78	520	542	605	605
Net income	13,275	12,063	14,490	17,115	19,745
Adj. net profit	15,663	14,706	17,453	20,660	23,810

Cash flow summary

YE 31 Dec (RMB mn)	FY19A	FY20A	FY21E	FY22E	FY23E
Net income	13,469	12,330	14,490	17,115	19,745
D&A	2,614	3,458	2,603	3,346	4,656
Change in WC	(358)	4,771	485	2,386	25
Others	1,492	4,329	2,963	3,545	4,065
Operating CF	17,216	24,888	20,541	26,392	28,491
CAPEX	(3,329)	(3,290)	(1,818)	(4,461)	(4,656)
Others	(18,808)	(25,902)	(7,108)	0	0
Investing cash flow	(22,137)	(29,192)	(8,926)	(4,461)	(4,656)
Repurchase	11	(11,491)	(6,671)	(6,671)	0
Dividends	(8,841)	(4,280)	(936)	(4,538)	(5,471)
Others	9,913	25,685	1,950	2,146	2,360
Financing cash flow	1,083	9,913	(5,657)	(9,064)	(3,111)
Net change in cash	(3,838)	5,609	5,958	12,868	20,724
Cash (beg of yr)	10,207	6,398	12,169	18,126	30,994
Fx effect	29	162	0	0	0
Cash (end of yr)	6,397	12,169	18,126	30,994	51,719
Restricted cash	3,150	3,051	3,051	3,051	3,051
Cash & cash eq.	3,246	9,117	15,075	27,943	48,667

Balance sheet

YE 31 Dec (RMB mn)	FY19A	FY20A	FY21E	FY22E	FY23E
Non-current assets	27,019	34,044	33,259	34,374	34,374
PP&E	4,622	4,555	3,771	4,886	4,886
Land use right, net	3,707	4,178	4,178	4,178	4,178
Time deposits	2,360	6,630	6,630	6,630	6,630
Others	16,330	18,680	18,680	18,680	18,680
Current assets	85,105	107,831	119,579	133,444	158,190
Cash and cash eq.	3,246	9,117	15,075	27,943	48,667
Time deposits	53,487	71,079	78,187	78,187	78,187
Short-term investments	15,313	13,273	13,273	13,273	13,273
Other current asset	13,059	14,361	13,043	14,041	18,063
Current liabilities	38,243	46,743	47,861	53,391	59,798
AP & accrued liabilities	1,212	1,134	1,232	1,439	1,650
Salary payables	2,957	3,539	3,153	3,681	4,222
Short-term loan	16,828	19,505	21,455	23,601	25,961
Others	17,245	22,566	22,020	24,670	27,965
Non-current liabilities	839	1,337	1,337	1,337	1,337
Other long-term payable	457	624	624	624	624
Deferred tax liabilities	382	713	713	713	713
Shareholders' equity	73,041	93,794	103,639	113,091	131,429

Key ratios

YE 31 Dec	FY19A	FY20A	FY21E	FY22E	FY23E
Sales mix (%)					
Online game	78.4	74.1	70.1	69.5	69.1
Youdao	2.2	4.3	6.6	5.6	4.8
Others	19.4	21.6	23.3	24.9	26.1
Total	100.0	100.0	100.0	100.0	100.0
Growth rate (%)					
Revenue	15.8	24.4	17.8	16.8	14.7
Gross profit	15.4	23.5	18.3	16.4	15.1
EBIT	38.2	5.4	11.8	19.6	15.7
Adj. net profit	45.5	(6.1)	18.7	18.4	15.2
P&L ratios (%)					
Operating margin	23.3	19.7	18.7	19.2	19.4
Pre-tax margin	27.7	20.9	21.3	21.5	21.6
Adj. net margin	26.4	20.0	20.1	20.4	20.5
Effective tax rate	(17.8)	(19.8)	(21.4)	(22.3)	(22.3)
Returns (%)					
ROE	21.4	15.7	16.8	18.3	18.1
ROA	14.0	10.4	11.4	12.3	12.4
Per share					
EPS (RMB)	24.1	22.0	25.7	30.3	34.5
DPS (RMB)	14.5	5.3	1.4	6.7	1.2
BVPS (RMB)	22.5	28.0	30.6	33.2	38.1

Source: Company data, CMBIS estimates

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