Video Games

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2020 review

2020 was an exceptionally strong year for the sector. With the population encouraged to stay at home and limit social interaction, people turned to gaming en masse for entertainment, escapism and socialising with friends/ family. The global video games software market is estimated to have grown 19.6% y/y to $174.9bn in 2020, with mobile at $86.3bn (+25.6% y/y), console at $51.2bn (+21% y/y) and PC at $37.4bn (+6.2% y/y). This was in stark contrast to the North American box office which declined 81.6% y/y to $2.1bn in 2020 with 2021 trending -93.6% year to date. China remains the world's largest video games market at $44bn, growing 21% y/y, driven by COVID-19 restrictions and an acceleration in new game approvals after a nine-month hiatus in 2018 due to a regulatory body reshuffle.

Source: Newzoo

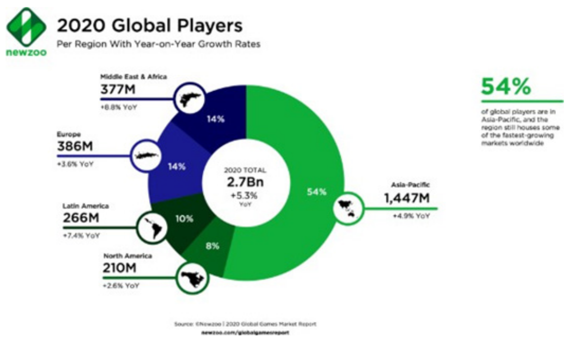
How sustainable is this growth?

The share prices for large-cap Western publishers were strong during 1H20 but lagged in the seasonally weaker second half (apart from Take-Two, publisher of Grand Theft Auto among others), impacted by positive vaccine news like other 'stay-at-home' names. While earnings were strong, valuations did not positively rerate as much as the rest of the market, we believe, because investors expect engagement (hours played) and therefore monetisation to mean revert as we return to normalcy. We would contend that the effects of COVID-19 restrictions are non-linear, however.

Newzoo increased their original 2020 revenue estimate by $15.6bn in their November update, which would imply the pandemic added around 10pp to growth, although the impact will vary significantly between platforms, companies and games. Despite the tough comparison, Newzoo believe the global video games software market will grow 8.2% to $189.3bn in 2021 – expecting most of the additional engagement and revenue to stick – and forecasts the market to grow to $217.9bn in 2023. While COVID-19 has impacted some aspects of development, the pandemic has not fundamentally changed the games market, nor has it transformed player behaviour. Rather, it has accelerated existing trends – more players, more engagement/monetisation and more digital distribution.

More players

The pandemic has been a boon to the industry both in bringing in new gamers and in particular enticing lapsed gamers back into the ecosystem. We believe gaming will have been etched deeper into people's habits during lockdown and the investment of money/time made in enjoying games will not be easily cast aside. PC and console gaming have a higher barrier to entry but therefore more sticking power. Retaining players is bread and butter for developers and publishers. A study by Newzoo (pre-COVID-19) found that 28% of all lapsed gamers intended to play games again in the next six months, but 60%



Source: Newzoo

of lapsed gamers that had played in the previous year indicated that they intend to play games again in the following six months. Our conversations with management teams indicated that the 'COVID-19 cohort' is behaving no differently to any other, so far. Longer term, the audience will continue to grow. By the end of this year, there will be 2.7 billion gamers worldwide, with 2.5 billion playing on mobile, 1.3 billion playing on PC and 800 million on console. Newzoo forecasts the number of gamers to grow to 3.07 billion by 2023 driven by the proliferation of devices, particularly in emerging markets.

More engagement/monetisation

While some consumers may play less after the pandemic ends, we believe all signs point to a significant chunk of engagement and revenue growth being permanent. The number of peak concurrent players on PC digital distribution service Steam, and the number of hours watched on video games streaming platform Twitch, spiked 54% and 101% y/y respectively in April 2020 when the first lockdown was enforced on Western markets. Engagement then gradually declined, bottoming in July (but still at a much higher level than 2019), before accelerating to a higher peak in December. Microsoft reported Xbox content and services (digital game sales, DLC/MTX sales and subscriptions) growth of 65% y/y in Q2, 30% y/y in Q3 and 40% y/y in Q4. Those indicators confirm consumers are continuing to engage with gaming more than they did before the pandemic – even in markets where lockdown measures have long been lifted. Newzoo research shows that socialising was the number two reason people spent more time playing games during the pandemic and network effects are likely to be lasting.

More digital distribution

The pandemic accelerated the secular shift to higher margin digital downloads on consoles (EA's digital download ratio increased by 13pp y/y to 62% in 2020). While the low hanging fruit has been picked, we remain confident that full-game digital download growth will remain a tailwind for gross margins, while next-generation consoles will give customers the option to purchase cheaper digital-only versions (with no optical disc drives) which should accelerate the transition further.

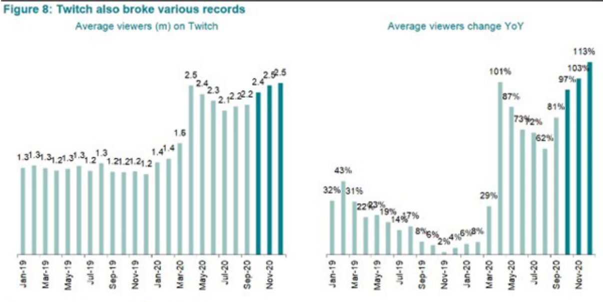
2021 growth drivers

In the autumn, Microsoft and Sony launched their next-generation console hardware (for the first time since 2013), generating strong demand which manufacturers were unable to meet due to component shortages – c6.5 million units were sold by the end of 2020 (4.5 million PS5, 2 million Xbox Series X), slightly behind the previous generation. However, Exane expect the install base to reach c30 million units by the end of 2021, 7% above the previous generation. In any case, the publishers will continue to benefit from the massive install base of previous generation consoles (240 million units, of which 115 million PS4, 49 million X Box one and 76 million Switch). After a period of relative stability in video game prices – $60 for a AAA game for the past 15 years – several publishers (Sony, Activision, Take-Two) have priced games for next-generation consoles to $70, which would increase net bookings per game by 17%. The release slate in 2021 should be bigger than in 2020, which was a relatively light year ahead of the next generation console launches. Mobile remains a growing segment (+10% y/y in 2021), supported by increased investment in console/PC IP-based mobile games (such as Call of Duty Mobile) and the deployment of 5G.

Figure 7: Steam peak concurrent players: various records broken in recent weeks

Source: SteamDB, Exane BNP Paribas estimates

Figure 8: Twitch also broke various records



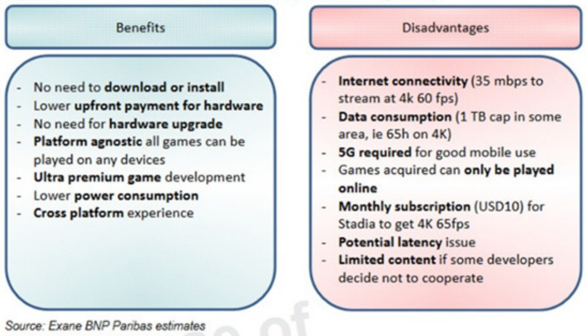
Source: Twitch tracker, Exane BNP Paribas estimates

Source: Exane BNP Paribas

Cloud gaming

2020 marked a key inflection point for the cloud gaming market, with most of the major players (Alphabet, Microsoft and Amazon) launching their respective services. After all the hype, gamers were disappointed by the Stadia launch, which was marketed as the finished article despite having technical issues, an underwhelming library of games (with no original content) and many of the promised features non-existent. Microsoft xCloud and Amazon Luna offerings are being rolled out gradually, keeping expectations in check. Despite this false dawn, Newzoo expects the cloud gaming segment to cross $1bn in revenues in 2021 (from $585m in 2020) and reach $4.8bn in 2023 (c2% of the total market), as services are rolled out in more regions and on more devices (cloud gaming apps are finally making their way to iOS via a web app) and performance improvements supported by the deployment of 5G. The calamitous launch of Cyberpunk 2077 on legacy consoles (which did not really meet the system requirements), demonstrated the advantages of cloud gaming services such as Stadia, which stood out as one of the best ways for gamers to instantly experience optimized graphics.

Figure 21: Main benefits and disadvantages of cloud gaming



Source: Exane BNP Paribas

Platform competition

We believe increased competition for content could be beneficial for games publishers, leading to lower take rates and/or acquisitions. On PC, Steam has already lowered its commission due to competition from direct-to-consumer channels and the EPIC Game Store. While on mobile, Apple has halved the commission it takes from the sale of apps/virtual items by smaller developers (<$1m of revenue), although more likely a response to pressure by lawmakers/a lawsuit from EPIC Games than competition. We continue to believe gaming platforms are better off buying content rather than building it, given the time it takes to develop AAA games and the uncertainty of success. Even though Microsoft has been building development capability for years, it acquired Bethesda for $7.5bn (the second largest deal in gaming history) despite its games being distributed across a variety of platforms (PS, Xbox, PC). In February, Alphabet pulled the plug on its in-house game development, which should deter non-incumbent platforms from building content organically as it proves AAA game development is expensive, difficult and time-consuming. Stadia and Luna have little hope of competing without building a large library of IP for subscription services and partial or total exclusivity of AAA content, which could be achieved by acquiring established developers/publishers.

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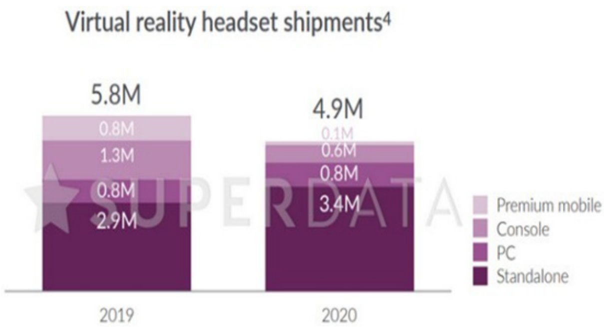
Rise of the metaverse

Enabled by the internet, video games have been used to socialise for more than a decade now but, owing to the lack of physical gatherings this year, usage has accelerated dramatically. Roblox, recently listed, is a platform for shared online experiences where people can interact in 3D-simulated virtual environments, sometimes referred to as a metaverse, enabling people around the world to play, learn and work together. Players control customized three-dimensional avatars, which interact in virtual environments (a small town, a school, a prison, a pizza parlour etc), often in fundamentally non-gaming experiences, like a music performance from Lil Nas X. Travis Scott reportedly grossed $20m for his Fortnite concert and 140 million people watched it on YouTube, compared to the 12 million who participated in-game, demonstrating both the growth potential and demand for such content. Marriages, graduation ceremonies and even funerals have taken place in Animal Crossing. Roblox outsources content development and focuses entirely on making execution as seamless as possible for external designers, which means the product is constantly evolving. Roblox has a vibrant economy built on a currency called Robux, which users can spend by buying experiences, Avatar items and developer tools from each other – company revenue is generated by fees on these in-game transactions, a recently implemented subscription offering, as well as a 65pp FX spread between in-game and real-world currencies. The platform had 150 million MAUs in July and 31.1 million DAUs (monthly/daily active users) in September, while management believes it can one day support billions of users. The Roblox platform combines significant bookings (+171% YTD) and free cash flow growth, with strong unit economics.

VR/AR

The pandemic provided the kind of climate in which VR should have flourished – the perfect escape for people unable to enjoy real-life adventures. For early adopters it did – according to SuperData, 71% of VR headset owners used their devices more last spring than they had previously. However, VR headset shipments actually declined 15% y/y in 2020 to 4.9 million units. Sales of standalone VR rigs, such as the Valve Index (which came out in 2019) and the Facebook-funded Oculus Quest 2 (which launched last October), were up 19% even though they were out of stock for most of the year due to pandemic-induced production delays. However, this was offset by weaker PlayStation VR sales (developers have turned to the Quest platform) and the death of the premium mobile segment as platforms phased out support for the Samsung Gear VR and Google Daydream.



Source: Superdata

There are reasons to be optimistic though. VR software revenue rose 25% y/y to $589m, with much of the boost attributable to the March release of Valve's Half-Life: Alyx, a highly acclaimed, VR-exclusive that sold nearly 1.9 million units in its first six months and generated more revenue than all PC VR titles in 2019 combined. Facebook's Oculus Quest 2 headset is a marked improvement on the original (costing $299 and able to play any PC VR game untethered), selling over one million headsets in Q4, a record for any VR device not powered by a smartphone. A larger install base could make it more viable for major developers to work on bigger-budget VR- only titles, such as Respawn's Medal of Honor: Above and Beyond (which came out in December). Sony is likely to remain a major player, but next-generation hardware will not arrive until at least 2022. Superdata now puts the entire VR/ AR industry at $6.7bn. Eye-tracking solutions is another interesting area. In VR, eye-tracking is being used for foveated rendering reducing rendering workload by minimising the image quality in peripheral vision, which helps to keep the frame rate above the all-important 75fps.

2021 positioning

The boost from COVID-19 restrictions will fade, but the number of players, engagement and monetisation will be stronger and more long-lasting than expected, while the shift to digital distribution will be permanent. We believe this favourable view is not reflected in valuations that look undemanding relative to the market. Next year, the sector will benefit from the next-generation console cycle, AAA game price increases, as well as more content (there were few major releases in 2020), while longer-term opportunities include new platforms (mobile, streaming, VR/AR, metaverse) and greater competition for content (lower commissions/M&A). The biggest risk for the sector in 2021 is likely to be game delays, given the disruption caused by working from home (larger developers should be able to cope better), while the recent Cyberpunk 2077 fiasco illustrates the even greater risk of releasing games that are not ready.

Source: Exane BNP Paribas

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