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Basic Information

Last Closed Price	\$121.10
12M Target Price	\$161.34
+/- Potential	+33.2%
Bloomberg Ticker	SE US Equity
GICS Sector	Communication Services
GICS Sub-Industry	Home Entertainment

1Y Price v Relative Index



Company Description

Sea Ltd operates ecommerce, online gaming, and fintech businesses through its respective subsidiaries — Shopee, Garena and SeaMoney. It operates mainly in the emerging markets, including SEA and LatAM.

Key Financials

Market Cap	USD\$68.05b
Basic Shares O/S	562m
Free Float	59.8%
52-Wk Low-High	USD\$87.8 -USD\$372.7
Fiscal Year End	31-Dec-2021

(USD\$ M)	FY19A	FY20A	FY21E	FY22E
Revenue	2175	4376	9955	14,708
Gr Rate (%)	163	101	128	48
Gross Profit	605	1349	3896	5952
Margin (%)	28	31	39	40
Operating	-891	-1303	-1583	-1820
Margin (%)	-41	-30	-16	-12
D/E	3.5	2.1	1.5	3.2

Key Executives

Forrest Li	Chief Executive Officer
Tony Hou	Chief Financial Officer

We are initiating coverage of **Sea Ltd ("Sea" or "Company")** with a **BUY** rating and a **\$161.34** 12M price target.

FY21 Earnings Highlight

- Total revenue was \$10b, representing a 127.5% increase yoy
- Total gross profit was \$3.9b, representing a 188.8% increase yoy
- Total adjusted EBTIDA as -\$593.6m vs \$107.0m in FY20
- Gaming revenue saw 114.3% yoy increase to \$4.3b in FY21
- Ecommerce revenue saw 136.4% yoy increase to \$5.1b in FY21
- Digital financial services revenue saw 672.8% yoy increase to \$469.8m in FY21

Investment Thesis

- Shopee exhibits a **visible path to profitability** despite near term expense headwinds with its strong network of merchants and users
- Garena's **cash flow generation story is far from over**, with multiple levers for additional monetisation of Free Fire franchise, as well as strategic acquisitions providing upside optionality. As a publisher with deep experience in SEA, Garena also has a strong moat in the SEA gaming space
- SeaMoney is well positioned to leverage on the success of the other segments to **exponentially penetrate a large TAM**, while maintaining cash flow discipline with a hybrid model

Catalysts

- Announcement of more bank partnerships would spur adoption of Sea's financial services, while aiding in their hybrid model transition
- Release of new game titles could rekindle investors' confidence in the gaming segment
- Positive developments on Free Fire in India (which are in our opinion highly likely) could trigger rerating based on the sell-off following the news

Valuations

Our 12M target price at the date of coverage is US\$161.34, based on a blended approach of Sum-Of-The-Parts and Discounted Cash Flow analysis with a 5-year forecast period. To facilitate the SOTP and DCF valuations, relative valuation such as EV/Sales, EV/GMV and EV/EBITDA was used based on a +2FY basis, while doubling as a form of sanity check for our valuation methods.

Investment Risks

- **India banning Shopee following the ban on Free Fire** could dampen investors' confidence in Shopee's expansions
- **Increasing competition** in Shopee's core markets continuing to **dilute take rate**, amplifying profitability headwinds
- **Further divestments by Tencent** could result in prolonged overhang

Fig 1: Shopee's market share across key SEA markets



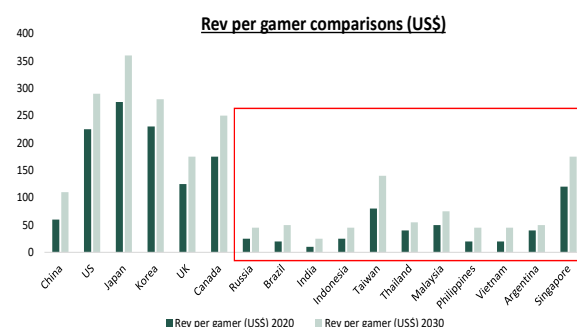
Source: Company Filings

Fig 2: Financial services offered in SeaMoney's key markets

SeaMoney services	Singapore	Malaysia	Thailand	Indonesia	Philippines	Vietnam
E-wallet	ShopeePay	ShopeePay	AirPay	ShopeePay	ShopeePay	AirPay
Payment counters	x	x	Airpay counters	Shopee Mitra	x	Airpay counters
BNPL	x	SPay Later	SPay Later	SPay Later	SPay Later	x
Consumer loans	x	x	✓	✓	x	x
Merchant loans	x	x	✓	✓	x	x

Source: Company Filings

Fig 3: Revenue per gamer in emerging economies



Source: Bernstein

Fig 4: Lifespan of long running game titles

Title	Launch Year	Age	Last 30 days Average Players (\$M)
PUBG	2017	4 years	521
Free Fire	2017	4 years	312
Fortnite	2017	4 years	271
Roblox	2006	15 years	217
League of Legends	2009	11 years	128
APEX Leends	2019	2 years	119
COD Mobile	2019	2 years	56
Genshin Impact	2020	1 year	48
CS GO	2012	9 years	35
Valorant	2020	1 year	16
Arena of Valor	2016	5 years	15

Source: activeplayers.io

Company Overview

Digital Entertainment (Garena)

Garena started off as a leading game publisher in SEA, publishing iconic PC games such as *Headshot* and *League of Legends*, where Garena would engage in revenue-sharing contracts with developers. In 2018, Sea entered a 5-year publishing contract with Tencent, where Garena has the right of first refusal to publish any of the Tencent games in SEA. More recently, Garena has been developing its own mobile games, including the world's most popular Battle Royale game, *Free Fire*, which has also become the main cash engine within this segment.

Ecommerce (Shopee)

Shopee is predominantly a 3P marketplace, which operates a B2C/C2C hybrid ecommerce model. Shopee's biggest markets are in SEA and Taiwan, where it holds a dominant position (large market share of c.42%). Shopee has recently also expanded into the LatAM region. (Fig 1)

Digital Finance (SeaMoney)

SeaMoney offers mobile wallet, payment processing, credit (long and short term) services under various brands such as ShopeePay, SPayLater and Airpay. (Fig 2)

Industry Outlook

1. Digital Entertainment:

Gaming spends in Garena's core markets have not caught up with larger counterparts, showing large headroom for growth

Garena core markets (mainly SEA and LatAM countries) are mostly in emerging economies where gaming spends are still far behind that in larger, developed economies. We believe that the discretionary spending on games, buoyed by accelerating growth rates in these emerging economies, should increase at a faster rate, benefiting game publishers and developers with exposure to these regions. (Fig 3)

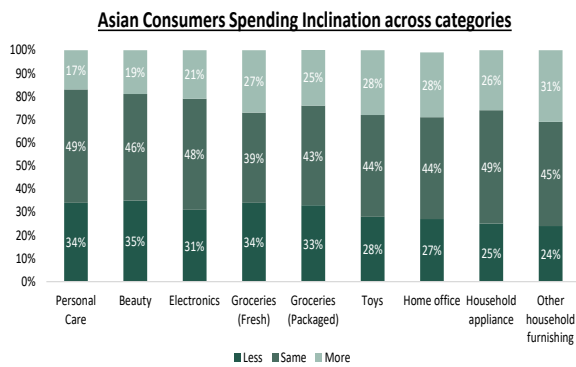
Long running game titles tend to be stickier among gamers

In the gaming industry, multiplayer game titles which are able to sustainably maintain a large user base are mostly games which have been around for several years. Rather than seeing a saturation after a few years, these games have proven to be able to continue expanding user base by leveraging on network effect of an already large community. Therefore, contrary to the markets' belief that multiplayer games generally have short lifecycles and that titles such as PUBG and Free Fire would soon fall out of fashion, it can be observed that longer running game titles (including titles like COD which has an 18-years-old franchise) continue to have a sticky user base. (Fig 4)

2. E-commerce:

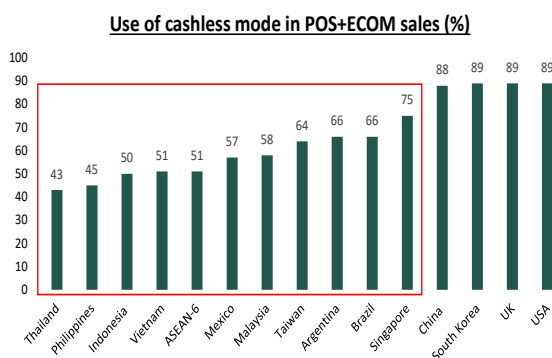
Majority of SEA consumers are expected to either maintain or increase their elevated online spending habits

Fig 5: Broad categories of online purchases



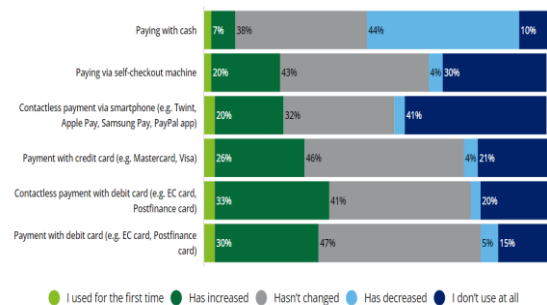
Source: Facebook, Bain and Co.

Fig 6: Cashless penetration comparison among Sea's targeted markets



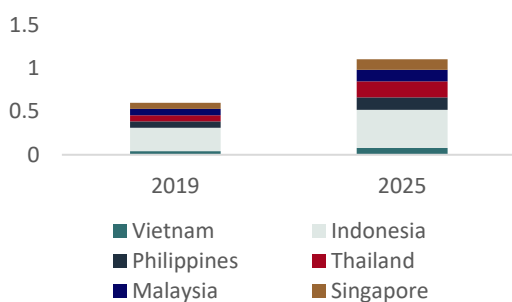
Source: Bernstein

Fig 7: Prevalence of cashless payment



Source: Deloitte

Fig 8: Digital payments gross transaction value



Source: Euromonitor, GlobalData, Bain, Temasek

According to a study conducted by Facebook and Bain & Company, despite COVID-19 restrictions pushing SEA consumers to shift their spending habits online, majority of these consumers are inclined to either maintain, or even further increase their already elevated online spending (Fig 5). For instance, when it comes to purchasing fresh groceries online, 27% believe that they will be spending even more post-covid, and 39% believe that they will still maintain their outsized spending.

As such, in SEA where Shopee has a prominent presence in, shift in consumer behaviour towards online spending is not a one-off event that had been necessitated by COVID-19. Rather, COVID-19 has pulled forward and accelerated digital transformation in this region, and SEA remains poised for strong online spending growth going forward.

3. Digital Financial Services

Sea's core markets have low penetration of cashless payments

Compared to matured markets such as the likes of UK and US which have a cashless penetration rate of 88-89%, Sea's main markets see a rate of c.57% (Fig 6). As such, there are optically more room for the expansion of digital financial services in these markets as compared to matured counterparts. This would happen as these economies develop at an accelerating rate, and financial services infrastructures become more established to support a more prevalent use of digital payments.

COVID-19 has accelerated the use of digital payments

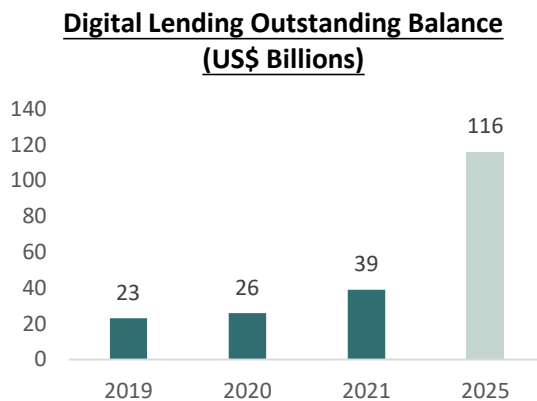
COVID-19 has also changed the payment habits of consumers significantly as contactless digital payments become the safer option for customers to carry out transactions — with much fewer health risks. On the other end of the spectrum, merchants have been able to enhance delivery, ecommerce, as well as card-not-present (CNP) capabilities in partnership with service providers such as Paytm (India), Delivery Hero (Europe) and Grabpay (SEA).

As a result, digital payments have become a lot easier and more prevalent than before. According to a study by Deloitte, around 20-30% of respondents have adopted some form of digital payment methods as a result of COVID-19 (Fig 7). Going forward, this trend is expected to continue, with SEA countries (Sea's core market) seeing a strong 10% CAGR in digital payments gross transaction value from 2019 to 2025 (Fig 8). The average digital penetration in these countries is also expected to see a gradual increase from 40% to 48% by 2025.

Digital lending is also set to pick up pace following COVID-19 impacts

Similarly, there are multiple tailwinds for digital lending, primarily due to its ability to enable the origination of loans at a lower cost and a much faster speed. Banks are also increasingly open to providing liquidity through partnering with consumer tech platforms. As a result, the total digital loan book is expected to see a 31% CAGR from 2021 to 2025, with total loan book reaching \$116B by 2025 (Fig 9).

Fig 9: High growth of total digital loan book



Source: Bain, Google, Temasek

Porter's Five Forces

Competition within industry – High

The competition in the industry is high as there are many strong competitors. For the e-commerce business, Shoppe faced the competition such as Alibaba and Lazard in both the Southeast Asia, Europe, and Latin Americas. SeaMoney faces the competition from Alipay, GrabPay and other digital finance providers which are intended to expand further given the customers' habit shift towards the digital payment after Covid-19. Similarly, Garena also face a competitive landscape in the gaming environment with big players such as Tencent. Overall, the competition in the industry is very intense.

Threat of new entrants – Moderate

The threat of new entrants is moderate as the three segments all require sufficiently high capital to develop. This creates a high barrier of entrants for the potential new players. However, existing big companies could explore new business such as digital financial services by tapping on the resources they already have, adding to the threat of entrants.

Threat of substitutes – Moderate

There are available substitutes to Sea's products due to the competitive environments and the broad range of services they offer. The threat of substitutes could be dependent on the markets. In certain markets such as the Southeast Asia, Sea has the dominant market shares. For example, Shoppe is the largest e-commerce platform in Southeast Asia which where there are less available substitutes. Also, customers may have the preference towards Sea's products such as the Free Fire provided by Garena. This further reduces the threat of substitutes.

Bargaining power of customers - Moderate

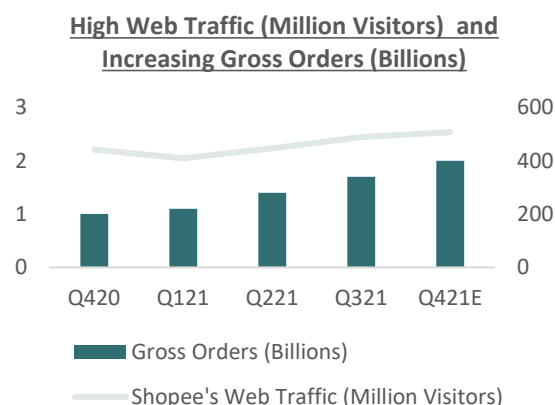
For most business that Sea has, customers could switch to other products or services if they want. Especially in the business where substitutability is high and similar products exist, customers are less likely to be sticky. However, with the ringfencing efforts made by Sea, customers could be possibly locked in the ecosystem of Sea in the future, making the bargaining power of customers moderate.

Bargaining power of suppliers - Moderate

For software based business such as Garena and SeaMoney, there is less likely supply chain risk. For Shopee's e-commerce business, it is very dependent on the Third-Party Logistics (3PLs) and other merchants, especially in the newly expanded markets such as Brazil and India. Shopee allows almost zero commission to launch their business online in the newly expanded markets; reduce of the merchants could possible impede their expansion efforts. Hence, Shopee is very dependent on the suppliers. Overall, the bargaining power of suppliers is moderate.

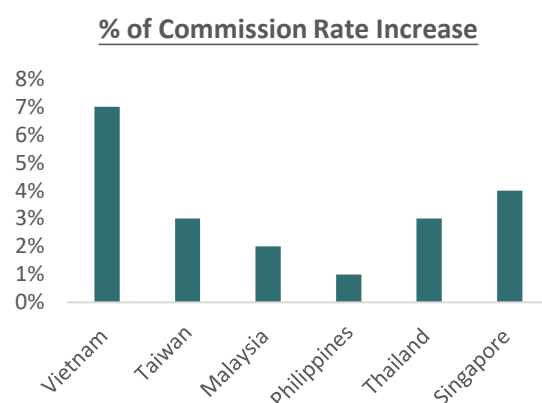
Investment Thesis

Fig 10: Popularity of Shopee in the post-Covid environment



Source: Company Filings

Fig 11: Commission rate increase in the LTM



Source: Company Filings

1. Shopee continues to have a visible path to profitability despite irrational derating by the market

We believe that Shopee's successful expansions into new markets, which would eventually pave way for effective monetisation, have been irrationally overshadowed by near-term cash burns. In an inflationary environment, this has led to exaggerated rotations out of the stock.

A. Current expansion plan is predicted to be successful despite short-term cash burns

Currently, the market worries about Shopee's growth momentum in the post-COVID environment and whether the cash burning strategy for expansion will be successful. Comparing Gross merchandise value, download times and active users on shopping category apps, Shopee still rank at the top (Fig 10). It is not lackluster in the post-covid environment; Such popularity and engagement will further fuel the growth momentum and monetarization opportunities thereafter.

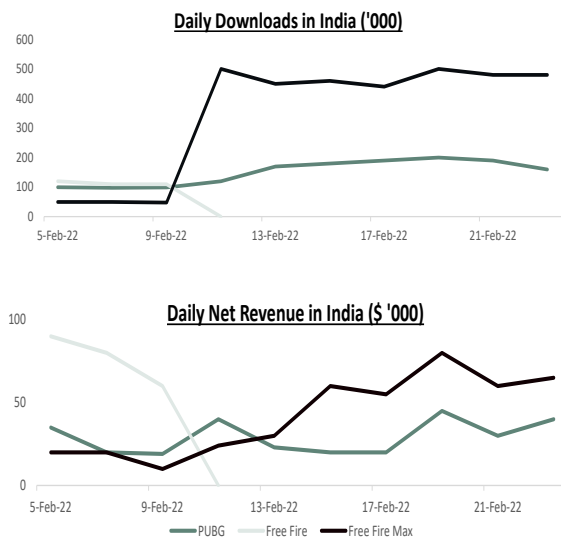
The target market of expansion for Shopee has the characteristics of a high total addressable market, low e-commerce penetration and do not have many categories of products. To suit such needs, Shopee has long-tail strategy to have expanded product categories such as clothes and health & beauty products. At the same time, Shopee also focused on lower-ticket items with lower average selling price. Besides, localization strategies are employed for their marketing endeavors such as using the local management teams. Shoppe also further connect the customers to their existing ecosystem which they have already built, such as using Free Fire for customer acquisition. These strategies allow them to have a relatively stickier user base and greater market share. For example, these strategies have been used in Brazil since 2019 and shape successfully pushed up 2020 e-commerce sales by 44%. Other potential markets such as Poland, India and Spain also have the needs for a broad category of products where their e-commerce penetration is still relatively low. Similar to what Shoppe has done in Brazil, with further localization strategies, it is also predicted that Shoppe could successfully expand into those regions and gain a large market share despite the current cash burning used for expansion.

B. By cementing its position as a go-to ecommerce platform, Shopee can increase monetization in the medium-long term

Shopee's successful expansion could also be seen in its success in getting the large market share especially in the Southeast Asia regions. Such a dominant position could make Shopee a Go-To e-commerce platform, they could then monetarize by having more advertising services, commission fees and logistic services throughout the chain of services provided by them.

For example, commission rates by Shopee have been revised upwards 9 times in the LTM in 6 different markets such as Malaysia and Taiwan where Shopee has the dominant market positions. Vendors are not reluctant to such changes as the initial commission cost charged by Shopee is very low when they started to launch their business on Shopee. With a relative mature business, vendors become more dependent on the platform provided by Shopee and are less likely to move away. Such a commission rate hike also does not impede the market share growth in those regions where Shopee continue to have the dominant market share and more vendors are launching their business on Shopee which has become the Go-To market platform in those regions. Potential revenue streams such as advertising could

Fig 12: Free Fire and Free Fire Max since India's ban



Source: Sensor Tow

Fig 13: Part of Free Fire's social experience includes having DJs perform in the game



Source: Company websites

Fig 14: Free Fire organises live performances which create bona fide social interactions between players



Source: Company websites

then contributes to the top-line growth. These strategies could also be used in the newly expanded market such as Brazil if Shopee continues to get the larger market share. Thus, Shopee's profitability still have significant room for improvement in NTM by relying on its dominant position. Furthermore, when current expansion strategy paid back in the future in those newly expanded market, there will be more monetization opportunities and hence profitability.

2. Garena's cash flow generation story is far from over

While Garena has suffered heavy derating by analysts as a result of slowing user growth in Free Fire and negative sentiments following India's ban, we continue to maintain our confidence in this segment and believe that there is still scope for growth both within and outside of the Free Fire franchise.

A. Negative sentiments arising from India's ban on Free Fire have been misguided

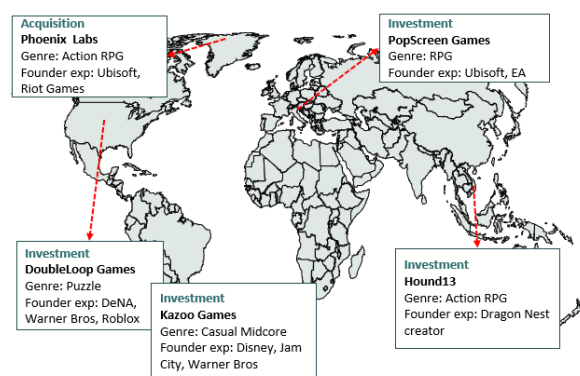
While c.6-7% of Digital Entertainment's top line is exposed to India, we believe that news of the ban on Free Fire have been drastically mispriced by the market. Firstly, while Free Fire had been banned, Free Fire Max, which was designed to deliver a more premium gameplay experience, was not banned. According to SensorTower, Free Fire Max's daily downloads have more than surpassed Free Fire (before it was banned) and the next most popular Battle Royale game, PUBG (Fig 12). User spend has also shown strong growth momentum, almost catching up with the levels of Free Fire. With Free Fire Max essentially targeting the more well-off segment, we see more levers for monetisation in the future, and we are confident that Free Fire Max can ride on the strong structural growth in India's economy. Furthermore, the ban on Free Fire was due to Sea's Chinese affiliation, presumably due to the large stakes which Tencent holds in Sea. However, we view Tencent's recent divestments positively, and believe that there is further scope for India's eventual removal of the ban given PUBG's re-emergence (See Catalysts), as well as Sea's expansions in other markets.

B. Having established an enduring Free Fire franchise, Garena is well-positioned to further monetise the game, even if user growth softens

Free Fire has become an extremely well-established franchise, with over 345m monthly active players. We believe that even if user growth softens, Garena still has multiple levers to monetise this franchise. We see increased monetisation coming from strategic moves to leverage on this enduring franchise:

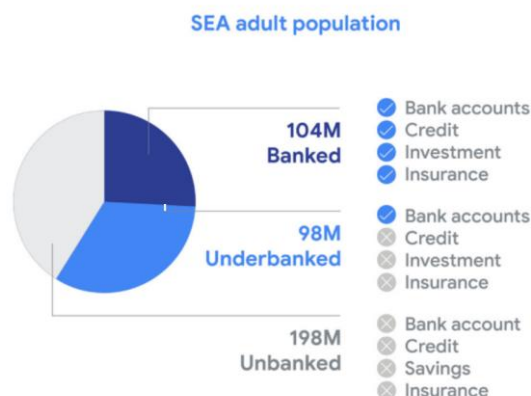
- 1) Introducing Free Fire Max to penetrate into the up-market segment which will enable Free Fire to access a larger addressable market, with more affluent users who are more prepared to spend
- 2) Evolving Free Fire beyond its Battle Royale format, by introducing other related content and features. These include Craftland (which allow users to create their own maps) and Lone Wolf (which allows for 1v1 or 2v2 quick gameplays)
- 3) Free Fire has also moved towards becoming a social experience platform, where users can take part in-game activities, parties and even concerts (Fig 13 & 14). We believe that such social experiences can enhance the durability of the game, with such seasonal events and player interactions propelling higher in-game spending

Fig 15: Sea's investments and acquisitions from FY20-21



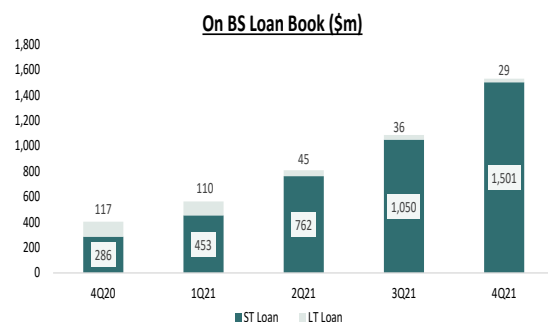
Source: Company Filings

Fig 16: Large proportion of the SEA population lacks access to financial services



Source: Google, Temasek, Bain

Fig 17: SeaMoney's expanding loan book as adoption of its services increased in key markets



Source: Company Filings

While Free Fire has already managed to accumulate an extremely large user base, we believe that it is far from the end of its lifecycle. Furthermore, at this current stage of maturity, strong network effects are tailwinds for Garena to monetise the game more easily by incrementally pushing out in-game purchases.

C. Strategic capital allocations provide upside optionality for synergistic benefits such as development of new game titles

While the ongoing concerns have been surrounding Garena's reliance on a single game title (Free Fire) to generate cash, we are confident in management's aggressive push towards diversifying its game titles. To that end, Sea has been extremely strategic with its capital allocation strategy, making several key investments in prominent video game developers which have rich experience across a diverse genre of games (Fig 15). We believe that Sea could leverage on these investments to enhance its game development expertise, enabling them to develop new game titles more easily. Furthermore, they could potentially leverage on game titles released by these developers and publish them to its core audience which are mainly based in SEA. While we have not modelled these assumptions into our projections, we believe that investors should be mindful of the upside optionality of Sea benefitting from further synergies with its acquisitions.

D. Hyperlocalization strategy continues to differentiate Garena as an attractive publishing partner

While SEA is a diverse region where each market is of a different cultural and language background, Sea's dominance in this region has given in greater expertise and understanding of local preferences, calendar events and marketing processes. This makes Garena extremely appealing to game developers (including the likes of Tencent) who wish to penetrate the SEA market yet lack the expertise and understanding of the nuances within the different individual SEA country. For instance, Garena publishes *Arena of Valor* (international adaptation of the popular Chinese game *Honour of Kings*) to its SEA markets — but further localized it by incorporating SEA folklore. Garena also publishes *FIFA Online*, in which it had added iconic Malaysian footballers (Dollah Salleh, Ong Kim Swee) into the game to better connect with its target markets.

Despite market's pessimism, we see a long runway for Garena to sustain its cash flow generation capabilities based on a combination of the above factors. We expect Garena to be able to continue growing its QPU strongly at 12.8% CAGR from FY21-26, driving a revenue growth of 16.7% CAGR in the same period.

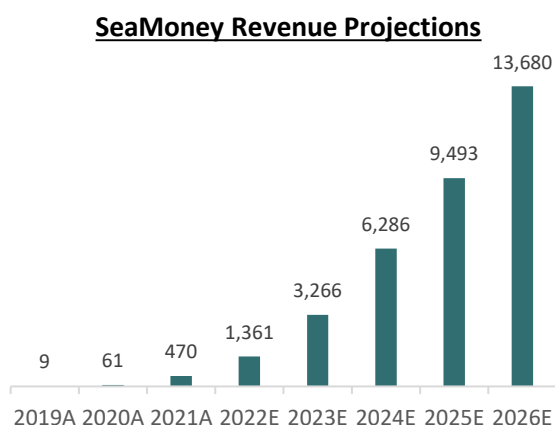
3. SeaMoney is a soon-to-be cash flow positive business that can leverage on the strong networks of its DE and E-commerce platforms

A. SeaMoney is well positioned to navigate in SEA where a significant percentage of the population remains unbanked

Currently, only a small proportion of Sea's core market has access to key financial services (Fig 16), paving way for the penetration of digital financial services in the region. We believe that establishing a strong foothold in ecommerce and gaming in EMs provides Sea a strategic segue to scale its financial services better than competitors (Fig 17).

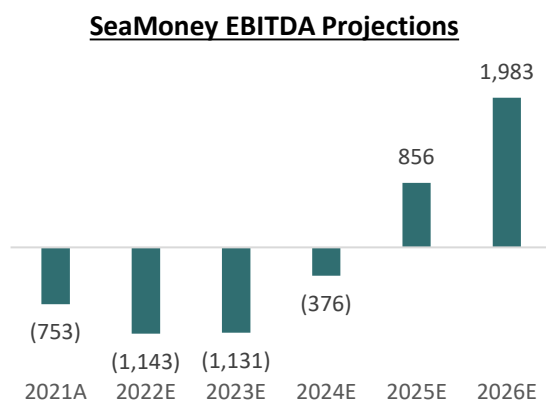
Sea had shown its ability to drive usage of ShopeePay by offering Shopee Coins as cashbacks on Shopee, thereby enabling them to quickly acquire and ringfence ShopeePay users. In other markets including Malaysia and Thailand, Sea had partnered with local banks

Fig 18: SeaMoney's revenue is expected to grow exponentially



Source: NUS Investment Society Estimates

Fig 19: SeaMoney is expected to turn EBITDA positive by FY25



Source: NUS Investment Society Estimates

such as KBank and Maybank to release cobranded credit cards that allow users to collect Shopee coins through transactions made. We see Sea adopting a similar playbook for the rest of its financial services, including BNPL and Digital lending, which play right into Sea's hands with its already established ecommerce and gaming businesses in the region.

B. SeaMoney can capitalize on bank partnerships to derisk its balance sheet and expand margins

By operating digitally, with highly accessible credit facilities for both consumers and SMEs, Sea is directly able to serve the large majority of the population that had previously been excluded from the traditional financial system, through digital services encompassing short-term microloans and BNPL. Most importantly, riding on the back of the success of its ecommerce and gaming businesses, SeaMoney would also be an attractive partner for traditional banks with legacy systems hindering their ability to venture into the realm of digital finance.

For instance, Sea has entered a partnership with KBank in Thailand through which gives Shopee merchants access to up to \$19k loans from KBank. While Sea also has a sizeable amount of on balance sheet loans, especially after the acquisition of Bank BKE in Indonesia, partnerships would allow Sea to additionally tap on these traditional banks' liquidity to provide loans. Expanding this partnership model would allow them to significantly derisk its balance sheet over time. This would enable Shopee to maintain a low credit risk, while decreasing operating expenses and loan loss provisions, thereby contributing to margin accretion. Unlike other fintech players like Affirm and Afterpay which bear the full credit risks and are in direct competition with traditional lenders, Sea on the other hand, enables banks gain access to a large group of unbanked/underbanked customers at a scale which other platforms cannot come close to competing against.

The partnership with banks will enable SeaMoney to incrementally expand its scale over the next few years. We thus project revenue in this segment to grow by 96.3% CAGR from FY21-26, from a low base (Fig 18). We believe that this hybrid model SeaMoney has adopted would also ensure a clear path to stable cash flows. We expect SeaMoney to turn EBITDA positive by FY25 (Fig 19), and EBITDA margin to reach 14.5% by FY26. Together with Garena, we believe that SeaMoney would soon be significant segment to help fund Shopee's rapid expansions, dispelling uncertainties surrounding Shopee's growth story.

Catalysts

1. Announcements of more bank partnerships that will accelerate adoption of Sea's financial services, while also creating more opportunities for SeaMoney to dispense off balance sheet loans

To the market, SeaMoney will continue to be Sea's bright spot, given the near-term headwinds faced by the other segments. However, its negative cash flow has resulted in near term overhang on the stock price. That said, we see incremental announcements of bank partnerships a huge positive for Sea, which will be reflected in the bottom line and cash flows over time. Bank partnerships will also accelerate the scale of SeaMoney's adoption, fuelling positive rerating of the Sea's share price — given that the markets have not fully appreciated SeaMoney's ability to scale successfully amidst stiff competition in the payments and banking space.

2. Release of new game titles will rekindle investors' confidence in Sea's gaming segment

Free Fire remains as Garena's poster child of its gaming success. In a risk-off environment, we understand that investors are concerned with potential saturation of user base as user growth slows down. We believe that release of new game titles will reflect Sea's ability in creating successful game titles, rather than being a "one-trick pony" with its Battle Royale format. As mentioned in our thesis, Sea has made several strategic acquisitions in this segment, and we believe that it is extremely likely for investors to see release of new game titles over the next few years.

3. Positive developments on Free Fire in India

We are optimistic that investors could see positive developments on Free Fire in the near term. Given precedent incidents such as PUBG being able to re-enter the Indian market after rebranding, it is likely that Free Fire could adopt the same strategy by creating a rendition of the game specifically tailored to the Indian market. Furthermore, games like Clash of Clans, which was developed and published by Supercell (where Tencent is a majority shareholder) is still available in India. We are thus confident that Sea, without any direct affiliation with China, can take steps to work with the Indian government and re-enter the market.

Financial Analysis

US\$m	2021A	2022E	2023E	2024E
Revenue Growth	128%	48%	45%	33%
Gross Margin	39%	40%	42%	46%
EBIT Margin	-14%	-5%	4%	13%
Net Profit Margin	-21%	-10%	-3%	4%
Cash Ratio	129%	80%	68%	68%
Quick Ratio	190%	120%	98%	93%
Current Ratio	211%	152%	130%	126%
ROA	-11%	-6%	-2%	4%
ROE	-28%	-24%	-11%	19%
Debt-to-Equity Ratio	53.4%	67.3%	75.6%	60.4%

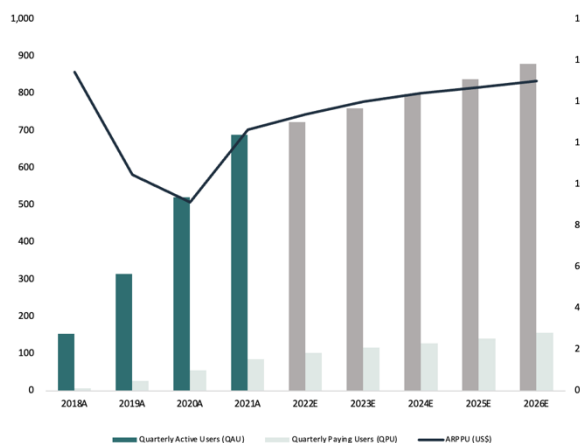
Overview

The table above reflects the financial positioning of Sea in FY21 and the reflection of our assumptions for the next few financial years. Most of the ratios reflect a positive trend in the upcoming years which supports our overall BUY recommendation.

Top Line Growth

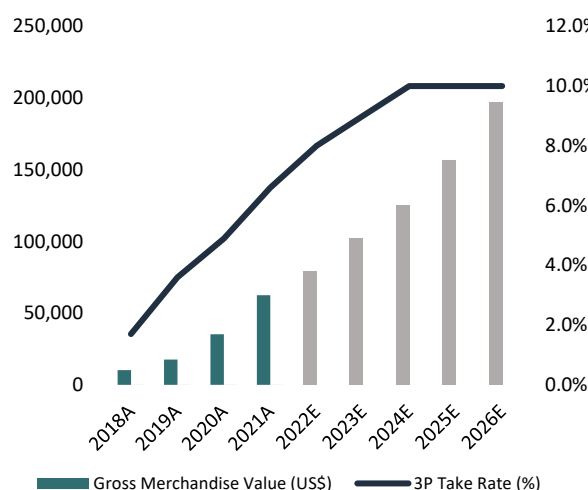
Given the high growth nature of Sea, we have forecasted strong double digit growth rates which is a conservative estimate compared to historical. This is to account for the ban of Free Fire in India, however

Fig 20: Garena's revenue drivers projections



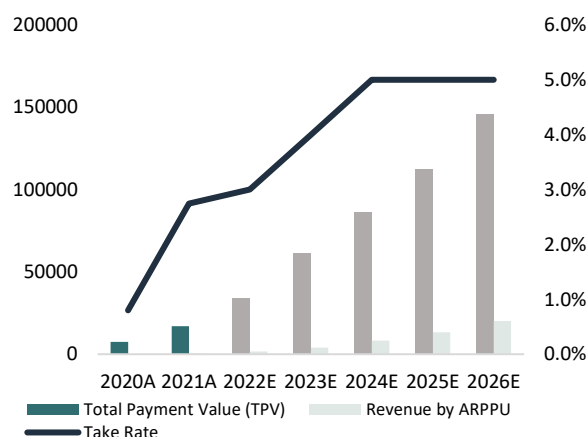
Source: NUS Investment Society Estimates

Fig 21: Shopee's revenue drivers projections



Source: NUS Investment Society Estimates

Fig 22: SeaMoney's revenue drivers projections



Source: NUS Investment Society Estimates

Sea's top line is expected to remain robust with the offsetting effects of Shopee and Sea Money as Sea ventures into new untapped markets. We believe that Garena's strong hyperlocation strategy along with Sea Money's well positioning to leverage on existing business segments will likely allow Sea to materialize such top line growth in the next few FYs.

EBIT Margin

As Sea continues to venture into new markets which inherently has lower cost in terms of labour, raw material etc., we forecast that the operating expenses of Sea will likely see a decline in terms of % of sales, while absolute values increase in a stable manner. As Sea's new ventures i.e Sea Money gains traction, we forecast that the Sales and Marketing expenses will likely see a plateau in growth rate as the need for aggressive marketing fades. Overall, the cost savings from its operating expenses along with strong top line growth will allow Sea to see steady margin accretions in the next few FYs.

Efficiency Ratios

As Sea's management shifts their focus on turning Sea profitable in FY24, we forecast that the ROA and ROE will likely see positive outlook which will largely be facilitated by the margin accretions. As Sea turn profitable, we expect its leverage to decline as well. This can already be observed given the management's decision of utilizing a Revolving Credit Facility and shifting away from issuing convertible notes as in the past. These factors will overall improve shareholder returns with less dilution (convertible notes) and boost its efficiency.

Valuation

Valuation Price Target: US\$ 161.34; Derived from a blend of Sum of the Parts (SOTP) valuation and Discounted Cash Flow (DCF) valuation (Gordon Growth Method and Exit Multiple Method). This represents a blended upside of 33.2% from the closing price of US\$ 121.10 on 1st April 2022.

SOTP Model

Given sheer size and segmented nature of Sea's business model, our team have emphasised on the utilisation of a SOTP valuation model to estimate the intrinsic value of Sea's share price. The model was projected 5 years forward to 2026E and +2FY ratios were utilised to more accurately reflect the materialisation of Shopee and Sea Money which are still in the early growth stages.

Revenue Projections

The overall revenue for Sea Ltd was broken up into three to reflect the main business segments of the Company: Garena (Gaming), Shopee (E-commerce) and SeaMoney (Digital Finance). A bottom-up approach was utilised for all three segments and further elaboration are as follows:

Garena

Revenue is made up by multiplying the number of Quarterly Paying Users (QPUs) with the Average Revenue Per Paying User (ARPPU). Quarterly Active Users (QAU) was a figure taken into account for deriving the forecasted QPU as a % of QAU. For QAU, we

conservatively projected a 5% increase year-on-year (y-o-y) to reflect the possibility of lowered game popularity and India's ban on FreeFire. This was further stepped down to 4% in FY24 and 3% in FY26. QPU was projected to increase at 15% for 2022E, followed by a step down to 7.5% in 2023E and 5% thereafter. This highlights Sea's abilities to monetise Garena further despite the softening user growth.

On the same note, ARPPU is projected to increase at 6% y-o-y in 2022E which is a conservative estimate compared to the 38.2% growth in the latest fiscal year. The steep decline in growth rate reflects our belief that Garena's venture into new markets with lower costs of living will offset their strong monetisation efforts. ARPPU is then projected to gradually step down its growth rate to 2%, reflecting the broader economic inflation growth rate and ARPPU is reflected to reach \$15 per paying user in FY25, reverting to FY18 numbers. The trend shows the short term user acquisition in exchange for lower ARPPU, followed by mean reversion of ARPPU as strong monetisation takes off.

Shopee

To project Shopee's Gross Merchandise Value (GMV), it was broken down into number of orders and average order value. The number of orders were forecasted to grow at 50% for the next to FY with a step down to 40% from FY24-26. This decrease from Shopee's triple digit order growth rate in the past three fiscal years reflects the possibility of decelerating growth amidst a post-pandemic environment as some consumers may shift towards retail shopping. Average order value has also been projected to decrease gradually from -16% in FY22 to -10% in FY26, as Sea ventures into more emerging markets with lower cost of living.

First party (1P) and third party (3P) take rate (Fig 18) was also projected to increase gradually to 3% and 10% in FY26 respectively to reflect Sea's long term efforts in monetising Shopee by hiking commission rates. 1P revenue was also forecasted to account for a higher % of revenue as Shopee reduces its reliance on third-party relationships with sellers.

SeaMoney

A blended approach was taken to project SeaMoney's revenue given the unpredictability in its developing stages. Total Payment Value (TPV) and take rate, along with ARPPU and QPU was used to derive an average top line. QPU was projected to grow at 90% in FY22 with a gradual step down to 20% in FY26, reflecting the success of strategies to increase SeaMoney's usership. ARPPU was projected in a similar fashion to highlight Sea's capabilities to leverage SeaMoney's well positioning and strong foothold. TPV was projected to double in FY22 and slowing decline in growth rate to 30% in FY26 as user base for SeaMoney expands rapidly in the region. Take Rate was also forecasted to increase gradually from 2.7% in FY21 to 5% in FY24. As a form of sanity check, Sea Money was modelled to be turn profitable in FY25 which is a more conservative revision compared to management's expectations of FY24.

Cost of Revenue

The cost of revenue can be broken down into the "Gaming" and "E-commerce and Other Services" segment. The gaming segment is projected as a percentage of sales and expected to decline to 20%,

reflecting the margin accretions that Garena stands to gain from its low-cost expansion efforts, by publishing its own games and embarking on a hyperlocalisation strategy.

The “E-commerce and Other Services” segment is expected to see increments at a substantially lower rate due to improvement in supply chain and lower logistic costs, in line with management expectations.

Operating Expenses

Sales and Marketing: Garena, Shopee and SeaMoney were projected as % of sales, GMV and TPV respectively in FY22-23. For Garena, we expect % of revenue to steadily decline in line with historical trends. For Shopee and Sea Money, we forecasted the expenses to maintain its % of sales, reflecting efforts to deepen consumer engagement and promote adoption of SeaMoney specifically, followed by gradual step downs towards FY26.

General and Administrative: Forecasted to decline slightly from 11.1% of revenue in FY21 to 10% in FY22. Expected to stay constant as staff compensation and benefit would be lower in a post-pandemic environment. Salaries expected to be lower in emerging markets as well.

Research and Development: Expected to decline slightly from 8.4% of revenue in FY21 to 8% in FY22. To stay constant thereafter as investing in R&D expected to move in tandem with strong revenue growth. Cost of research expected to be lower in emerging markets as well.

WACC

For WACC, the capital structure of Sea was split into Equity and Debt. For the Cost of Equity, CAPM was used. The risk free rate was derived from the US 10 Year Treasury yield i.e. 2.41%. Beta was found by regressing the 5 year historical share price of Sea with the S&P500 index, giving a value of 1.43. The equity risk premium was calculated by using SPY 5 year mean returns as a basis, deriving 5.99%. To account for Sea’s wide geographical exposure, the company risk premium was calculated by using Revenue as a proxy and estimates from Damodaran. This gave a combined 12.86% for the Cost of Equity.

Cost of Debt was calculated by first deriving the pre-tax cost of debt. Given the historical nature of Sea to issue convertible notes only, the management’s recently enter into a Revolving Credit Facility with a maximum drawdown of US\$100 million. To reflect the company’s shift towards traditional debt as it matures, we projected that the revolver remains in place till FY26, albeit the 2 year nature of it. A 3.50% pre-tax cost of debt was derived while the 17% statutory tax rate of Singapore was used as the Effective Tax Rate.

With the aforementioned figures along with a 8.5% proportion of Debt and 91.5% proportion of Equity, we derived a WACC of 12.02% for Sea.

Terminal Growth

We used both the Gordon Growth and Exit multiple method to arrive at the terminal value. For the Gordon Growth Method, we used a long-term growth rate of 2.0%, in line with that of the GDP growth rate of developed markets. We used an exit multiple of 17.2x, which is the

Fig 23: WACC Buildup

WACC	
Risk Free Rate - US 10Y Treasury Yield	2.41%
Levered Beta	1.43
Equity Risk Premium (Rm-Rf) - SPY 5Y Returns	5.99%
Company Risk Premium	1.88%
Cost of Equity	12.86%
Pre-tax cost of debt	3.50%
Tax Rate	17.0%
Tax Adjusted Cost of Debt	2.91%
Market Cap (US\$ million)	42,817
Total Debt	3,967
Proportion of Equity Capital	91.5%
Proportion of Debt Capital	8.5%
WACC	12.02%

Source: NUS Investment Society Estimates

average median +2FY EV/EBITDA of Sea's peer comparables. Assuming equal weight for both methods, we arrive at a terminal value of US\$182 billion.

SOTP/Relative Valuation

To properly value Sea's exposure in the three business segment, relative valuation of peer comparables for each of segments were considered and the median percentile was used throughout to conservatively value which further supports our view of Sea's undervaluation. To accurately reflect the success of expansion efforts and growth capabilities, we utilised the +2FY multiples. Multiples used for each business segment are as follows:

Garena: EV/EBITDA and EV/Sales

Shopee: EV/Sales and EV/GMV

SeaMoney: EV/Sales

The comparables were mainly screened through the following criteria: (a) industry, (b) size, (c) geographical exposure, (d) growth profile.

Other Valuation Methods

To account for the recent drawdowns in the technology sector due to rising interest rates and capital rotation to value equity names, 52 Week High/Low and street analyst estimates were used as a form of comparison. These methods serve as a form of sanity check for the granular SOTP valuation and supplement the overall accuracy of our valuation.

Investment Risks

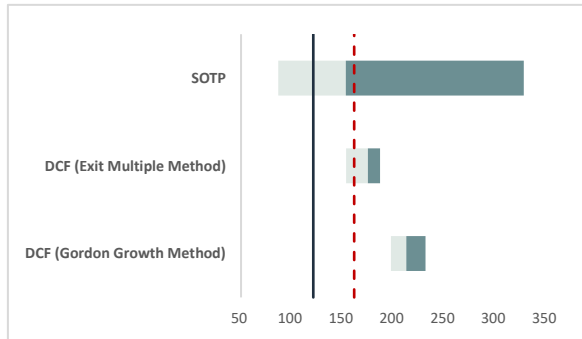
India banning Shopee followings the ban on Free Fire

We are not extremely concerned as we believe that Tencent's divestment should largely mitigate this risk. Furthermore, even if India does ban Shopee, we view this positively given the difficulty of ecommerce in India, with factors such as large land mass and extremely fragmented logistics services. In fact, even large ecommerce companies such as Amazon and Flipkart are making negative EBITDA in India with deep discount ecommerce models. Local conglomerates such as Reliance are also ramping up their ecommerce presence, and with strong cash-flow positive business lines, they can easily fund any aggressive race-to-the-bottom pricing strategy in order to expand their market share. Hence, we are not optimistic about Shopee's India operations, and believe that Sea cannot afford any heavy subsidization form other segments to directly compete against the likes of Amazon and Reliance. We thus believe that capital from Shopee India could be easily allocated elsewhere with higher ROIC should its operations in India be banned.

Increasing competition in Shopee's core markets will continue to dilute take rate

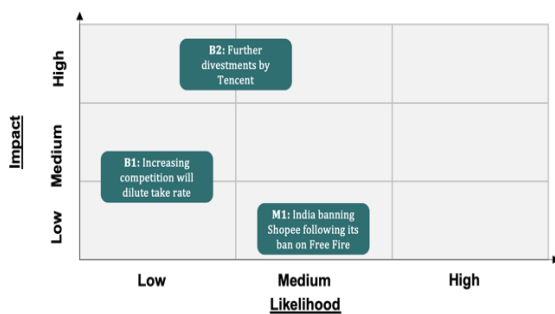
As an increasing number of entrants enter the ecommerce space, there is a possibility that Sea has to continue maintaining a low take rate in order to defend its market position. However, with Sea's efforts in creating an ecosystem through the integration of SeaMoney and Shopee, we view this as an extremely unlikely scenario. In fact, Shopee

Fig 24: Football Field



Source: NUS Investment Society Estimates

Fig 25: Investment Risk Matrix



Source: NUS Investment Society Estimates

Fig 26: Average take rate (based on small ticket items) in respective 3P marketplaces

Marketplace	Take Rate
Amazon	~15%
Ebay	~15%
Etsy	6.5%
Walmart	~15%
Farfetch	25-33%
StockX	11-12.5%

Source: Company Websites

has already successfully established a strong and dominant position in many of the key markets it operates in, with close to 40% market share. Even with conservative assumptions that Sea's LT take rate could only reach the levels of 10% (up from 6.6% in FY21), which is still in the lower band of the 3P marketplace take-rate range (Fig 26), Shopee would effectively become a profitable cash cow for Sea. We believe that this modest increase in take rate is not difficult to envision, given that successful ecommerce marketplaces in nature have strong network effects that could help ringfence both customers and merchants. In other words, with the large number of users Shopee has on its platform, merchants, in a bid to increase their sales volume (for better bargaining power with suppliers) would still continue to sell through Shopee. As opposed to strong ecommerce players in the region such as GoTo, Sea also has highly profitable businesses that could help subsidise any defence in market share, be it low take rates in the near term, or promotions/discounts that are enticing to both merchants and customers.

Further divestments by Tencent / Stock overhang on the back of recent divestment

Earlier in 2022, Tencent divested about 14.5m shares, reducing its stake from 21.3% to 18.7%. The news, however, had not been priced in positively by the market, against the backdrop of its earlier \$16b divestment of JD.com (cutting its stakes from 17% to 2.3%). This had led to speculations that Tencent would continue to further cut its stakes in Sea Ltd after the 6 months lockup period, which would be a huge downside risk to our target price.

However, we believe that the market's reactions were largely overblown. As Tencent mentioned in their official statement, Sea had seen significant growth which had been largely reflected in their share price outperformance. Tencent's decision to divest its stakes could be due to locking in of profits (which in hindsight was strategic given that they sold at \$208.00-\$212.00 per share). The decision to divest its stakes could also be to appease Chinese regulators, given that a lower stake is likely to have less antitrust concerns.

We think investors should not be drawing parallels to Tencent's divestments of JD.com, and speculations on an eventual exit of all of its stakes are largely unfounded. Tencent sold JD.com stakes because they believed that it was at a relatively mature stage of the business cycle, which is completely different from where Sea Ltd is today across all its business segments. On top of that, given the Chinese government's tightening control over gaming in the domestic market, overseas games are key strategic business for Tencent and Garena offers this as a publishing platform for Tencent to expand its international distribution channels

Moreover, we see Sea Ltd benefitting from this divestment. Firstly, this reduces control by a Chinese company, which may in turn aid its global expansions.

Against the backdrop of a rotation out of the tech industry and uncertain geopolitical risks, we believe that Sea Ltd had been over-penalized because of this divestment and should see an upwards correction in stock price as the overhang recedes. Moreover, we believe that any further divestment by Tencent is extremely unlikely.

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Appendix:

Pro-Forma Financial Statements

	Sea Ltd								
	3 Financial Statements								
Fiscal Year Ending 31/12 (In millions USD otherwise stated)	2018A	2019A	2020A	2021A	2022E	2023E	2024E	2025E	2026E
INCOME STATEMENT									
Revenue									
Service revenue									
Digital entertainment	462	1,136	2,016	4,320	5,529	6,460	7,266	8,015	8,842
E-commerce	270	834	2,167	5,123	7,770	11,484	14,688	18,974	23,907
Digital Finance	11	9	61	470	1,361	3,266	6,286	9,493	13,680
Other Services	83	196	132	42	47	53	59	65	73
Total Revenue	827	2,175	4,376	9,955	14,708	21,263	28,298	36,548	46,501
Cost of Revenue									
Cost of service									
Digital entertainment	(267)	(436)	(702)	(1,230)	(1,382)	(1,615)	(1,671)	(1,683)	(1,857)
E-commerce and other services	(446)	(908)	(1,744)	(3,826)	(5,903)	(8,656)	(11,101)	(14,005)	(18,072)
Cost of Goods Sold	(99)	(227)	(581)	(1,004)	(1,471)	(2,126)	(2,547)	(3,289)	(3,720)
Total Cost of Revenue	(812)	(1,570)	(3,027)	(6,059)	(8,756)	(12,397)	(15,319)	(18,978)	(23,649)
Gross Profit	15	605	1,349	3,896	5,952	8,866	12,980	17,570	22,852
Operating Expenses									
Other operating income	10	16	190	288	336	486	647	835	1,063
Sales and marketing expenses	(705)	(970)	(1,831)	(3,830)	(4,933)	(6,030)	(7,225)	(8,494)	(10,744)
General and administrative expenses	(241)	(386)	(657)	(1,105)	(1,471)	(1,914)	(2,264)	(2,558)	(2,790)
Research and development expenses	(68)	(157)	(354)	(832)	(1,169)	(1,691)	(2,250)	(2,906)	(3,698)
Total Operating Expenses	(1,004)	(1,496)	(2,652)	(5,479)	(7,237)	(9,148)	(11,093)	(13,123)	(16,169)
Operating Loss	(989)	(891)	(1,303)	(1,583)	(1,285)	(282)	1,887	4,447	6,684
Depreciation and Amortisation	(79)	(122)	(181)	(180)	(530)	(1,036)	(1,710)	(2,580)	(3,687)
Depreciation	(55)	(117)	(169)	(180)	(530)	(1,036)	(1,710)	(2,580)	(3,687)
Amortisation	(24)	(5)	(12)	0	0	0	0	0	0
Non-Operating Income (Loss)									
Interest income	12	34	25	36	0	0	0	0	0
Interest expense	(31)	(48)	(148)	(139)	(341)	(340)	(287)	(217)	(123)
Investment gain (loss), net	9	12	(18)	(44)	(10)	(10)	(10)	(10)	(10)
Changes in fair value of convertible notes	41	(473)	(0)	0	(108)	(108)	(108)	(108)	(108)
Foreign exchange gain (loss)	5	(2)	(39)	14	(5)	(5)	(5)	(5)	(5)
Loss before income tax and share of results of equity investees	(954)	(1,369)	(1,483)	(1,715)	(1,750)	(746)	1,477	4,106	6,437
Income tax expense	(4)	(86)	(142)	(333)	297	127	(251)	(698)	(1,094)
Share of results of equity investees	(3)	(3)	1	5	5	5	5	5	5
Net loss	(961)	(1,458)	(1,624)	(2,043)	(1,447)	(614)	1,231	3,413	5,348
Net (profit) loss attributable to non-controlling interests	(0)	(5)	6	(4)	(1)	(1)	(1)	(1)	(1)
Net loss attributable to Sea Limited's ordinary shareholders	(961)	(1,463)	(1,618)	(2,047)	(1,448)	(615)	1,230	3,412	5,347

	Sea Ltd								
	3 Financial Statements								
Fiscal Year Ending 31/12 (In millions USD otherwise stated)	2018A	2019A	2020A	2021A	2022E	2023E	2024E	2025E	2026E
Balance Sheet									
Total Assets									
Current Assets									
Cash and Cash Equivalents	1,003	3,119	6,167	9,248	9,707	11,810	15,070	20,168	26,395
Restricted Cash	254	435	859	1,552	1,552	1,552	1,552	1,552	1,552
Accounts Receivables, Net	98	187	363	388	814	1,177	1,566	2,023	2,574
Prepaid Expenses and Other Assets	312	535	1,054	1,402	3,697	5,345	7,114	9,187	11,690
Loans Receivables	0	0	286	1,501	1,501	1,501	1,501	1,501	1,501
Inventories, Net	38	27	64	117	148	209	259	320	399
Short-term Investments	1	102	126	911	911	911	911	911	911
Amounts Due From Related Parties	5	5	19	16	45	64	86	111	141
Total Current Assets	1,711	4,410	8,939	15,135	18,375	22,570	28,059	35,773	45,162
Non-Current Assets									
Property and Equipment, Net	192	319	386	1,030	1,331	1,765	2,344	3,091	4,041
Operating Lease Right-of-use Assets, Net	0	183	235	650	650	650	650	650	650
Intangible Assets, Net	13	15	40	53	53	53	53	53	53
Long-term Investments	111	114	190	1,053	1,053	1,053	1,053	1,053	1,053
Prepaid Expenses and Other Assets	69	66	205	125	125	125	125	125	125
Loans Receivables	0	0	117	29	29	29	29	29	29
Restricted Cash	2	17	27	39	39	39	39	39	39
Deferred Tax Assets	63	70	100	104	104	104	104	104	104
Goodwill	31	31	216	540	540	540	540	540	540
Total Non-Current Assets	482	814	1,517	3,621	3,921	4,356	4,934	5,681	6,632
Total Assets	2,193	5,224	10,456	18,756	22,296	26,925	32,993	41,455	51,794
Total Liabilities									
Accounts Payable	37	69	122	214	272	385	476	589	734
Accrued Expenses and Other Payables	637	981	2,033	3,531	5,493	7,777	9,609	11,905	14,835
Advances from Customers	29	65	161	245	452	653	869	1,123	1,429
Amounts Due to Related Parties	46	35	43	75	116	164	202	251	312
Short-term Borrowings (Revolver)	1	1	0	100	0	0	0	0	0
Operating Lease Liabilities (Current Portion)	0	56	75	186	0	0	0	0	0
Deferred Revenue	427	1,098	2,150	2,644	5,567	8,048	10,711	13,834	17,601
Convertible Notes	0	29	0	0	0	0	0	0	0
Income Tax Payable	10	27	52	181	207	293	362	448	558
Total Current Liabilities	1,186	2,362	4,636	7,176	12,106	17,320	22,230	28,149	35,470
Accrued Expenses and Other Payables	8	26	36	76	76	76	76	76	76
Long-term Borrowings	1	0	0	0	0	0	0	0	0
Operating Lease Liabilities	0	144	178	491	549	607	665	723	781
Deferred Revenue	171	161	343	105	105	105	105	105	105
Convertible Notes	1,062	1,356	1,840	3,476	3,476	3,448	3,316	2,387	0
Deferred Tax Liabilities	1	1	2	7	7	7	7	7	7
Unrecognized Tax Benefits	3	1	0	0	0	0	0	0	0
Total Non-current Liabilities	1,246	1,689	2,399	4,155	4,213	4,243	4,169	3,299	969
Total Liabilities	2,432	4,052	7,035	11,332	16,319	21,563	26,399	31,448	36,439
Shareholders' Equity									
Class A Ordinary Shares	0	0	0	0	0	0	0	0	0
Class B Ordinary Shares	0	0	0	0	0	0	0	0	0
Additional Paid-in Capital	1,809	4,687	8,527	14,622	14,622	14,622	14,622	14,622	14,622
Accumulated Other Comprehensive Income	15	5	5	(29)	(29)	(29)	(29)	(29)	(29)
Statutory Reserves	0	0	2	6	6	6	6	6	6
Accumulated Deficit	(2,068)	(3,531)	(5,151)	(7,201)	(8,649)	(9,263)	(8,032)	(4,619)	729
Total Sea Limited Shareholders' Equity	(243)	1,162	3,383	7,399	5,952	5,337	6,568	9,981	15,329
Non-controlling Interests	4	10	37	26	26	26	26	26	26
Total Shareholders' Equity	(239)	1,173	3,420	7,424	5,977	5,363	6,594	10,007	15,355
Total Liabilities and Shareholders' Equity	2,193	5,224	10,456	18,756	22,296	26,925	32,993	41,455	51,794
	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE

	Sea Ltd								
	3 Financial Statements								
Fiscal Year Ending 31/12 (In millions USD otherwise stated)	2018A	2019A	2020A	2021A	2022E	2023E	2024E	2025E	2026E
Cash Flow									
Operating Activities									
Net Income	(961)	(1,458)	(1,624)	(2,043)	(1,447)	(614)	1,231	3,413	5,348
Adjustments to reconcile net loss to net cash used in operating activities:									
Allowance for credit losses	2	4	58	0	0	0	0	0	0
Amortization of discount on convertible notes	14	33	88	0	0	0	0	0	0
Amortization of intangible assets	24	5	12	0	0	0	0	0	0
Changes in fair value of convertible notes	(41)	473	0	0	0	0	0	0	0
Deferred income tax	(20)	(4)	(27)	0	0	0	0	0	0
Depreciation of property and equipment	55	117	169	180	650	940	1,251	1,616	2,056
Gain on disposal of subsidiaries	0	0	(62)	0	0	0	0	0	0
Gain on disposal of investments	(8)	(0)	0	0	0	0	0	0	0
Gain on re-measurement of equity interests	0	(5)	(3)	0	0	0	0	0	0
Impairment loss on intangible assets	5	0	6	0	0	0	0	0	0
Impairment loss on investments	3	1	61	0	0	0	0	0	0
Loss on debt extinguishment	0	0	24	0	0	0	0	0	0
Net foreign exchange differences	(10)	(0)	11	0	0	0	0	0	0
Prepaid licensing fees written-off	5	0	0	0	0	0	0	0	0
Share-based compensation	58	117	290	470	0	0	0	0	0
Share of results of equity investees	3	3	(1)	0	0	0	0	0	0
Unrealized loss on marketable securities	0	0	24	0	0	0	0	0	0
Others	3	2	4	(157)	0	0	0	0	0
Changes in Operating Assets and Liabilities									
Inventories	(28)	12	(39)	(53)	(30)	(61)	(49)	(62)	(79)
Accounts receivable	(39)	(87)	(175)	(25)	(426)	(363)	(389)	(457)	(551)
Prepaid expenses and other assets	(159)	(215)	(527)	(267)	(2,295)	(1,648)	(1,769)	(2,074)	(2,502)
Amounts due from related parties	(3)	1	(11)	3	(28)	(20)	(21)	(25)	(30)
Operating lease right-of-use assets	0	(62)	(45)	(415)	0	0	0	0	0
Accounts payable	30	31	51	92	58	113	91	114	145
Accrued expenses and other payables	355	354	944	1,498	1,961	2,284	1,833	2,295	2,930
Advances from customers	3	34	93	83	207	201	216	253	306
Deferred revenue	204	637	1,162	256	2,923	2,481	2,663	3,122	3,768
Income tax payable	(0)	17	26	129	25	86	69	86	110
Amounts due to related parties	11	(12)	1	32	41	48	39	48	62
Net cash (used in) generated from operating activities	(495)	(1)	510	(217)	1,639	3,447	5,163	8,331	11,562
Investing Activities									
Purchase of property and equipment	(177)	(240)	(336)	(644)	(951)	(1,375)	(1,829)	(2,363)	(3,006)
Purchase of intangible assets	(1)	(7)	(21)	13	0	0	0	0	0
Purchase of investments	(70)	(118)	(220)	(1,648)	0	0	0	0	0
Proceeds from disposal of property and equipment	1	1	2	0	0	0	0	0	0
Proceeds from disposal of intangible assets	0	0	0	0	0	0	0	0	0
Proceeds from sale and maturity of investments	23	1	20	0	0	0	0	0	0
Distributions from investments	0	0	1	0	0	0	0	0	0
Acquisition of businesses, net of cash acquired	0	0	(92)	0	0	0	0	0	0
Disposal of subsidiaries, net of cash disposed	0	0	15	0	0	0	0	0	0
Change in loans receivable	0	0	(256)	(1,127)	0	0	0	0	0
Others	0	0	0	(362)	0	0	0	0	0
Net cash used in investing activities	(225)	(363)	(887)	(3,767)	(951)	(1,375)	(1,829)	(2,363)	(3,006)
Financing Activities									
Proceeds from issuance of convertible notes, net	565	1,139	1,141	1,635	0	0	0	0	0
Proceeds from Bank Borrowings	0	0	0	100	0	0	0	0	0
Purchase of capped call	0	(97)	(136)	0	0	0	0	0	0
Proceeds from borrowings	2	1	1	0	164	164	164	164	164
Repayment of borrowings	(3)	(3)	(32)	0	(392)	(106)	(106)	(106)	(106)
Proceeds from issuance of ordinary shares, net	5	1,539	2,970	6,096	0	0	0	0	0
Transaction with non-controlling interests	(26)	0	(21)	0	0	0	0	0	0
Proceeds from partial disposal of a subsidiary without a loss in control	4	0	0	0	0	0	0	0	0
Contribution by non-controlling interest	0	1	5	0	0	0	0	0	0
Payments for exchange and conversion of convertible notes	0	0	(50)	0	0	(28)	(132)	(929)	(2,387)
Change in accrued expenses and other payables	0	0	(146)	0	0	0	0	0	0
Others	0	0	0	(429)	0	0	0	0	0
Net cash generated from financing activities	547	2,580	3,733	7,402	(228)	30	(74)	(871)	(2,329)
Effect of foreign exchange rate changes on cash, cash equivalents and restricted cash	(13)	25	81	(58)	0	0	0	0	0
Net (decrease) increase in cash, cash equivalents and restricted cash	(186)	2,240	3,436	3,359	460	2,103	3,260	5,098	6,227
Cash, cash equivalents and restricted cash at beginning of the year	1,445	1,259	3,499	6,936	9,248	9,707	11,810	15,070	20,168
Cash, cash equivalents and restricted cash at end of the year	1,259	3,499	6,936	10,295	9,707	11,810	15,070	20,168	26,395

	Sea Ltd Revenue Model								
Fiscal Year Ending 31/12 (In millions USD otherwise stated)	2018A	2019A	2020A	2021A	2022E	2023E	2024E	2025E	2026E
Summary									
Overall Revenue	827	2,175	4,376	9,955	14,708	21,263	28,298	36,548	46,501
Growth %		163.1%	101.1%	127.5%	47.7%	44.6%	33.1%	29.2%	27.2%
Segmentation									
Gaming	462	1,136	2,016	4,320	5,529	6,460	7,266	8,015	8,842
Growth %		145.6%	77.5%	114.3%	28.0%	16.8%	12.5%	10.3%	10.3%
Ex. Gaming Revenue	365	1,039	2,360	5,635	9,178	14,803	21,032	28,532	37,660
E-commerce	270	834	2,167	5,123	7,770	11,484	14,688	18,974	23,907
Growth %		209.5%	159.8%	136.4%	51.7%	47.8%	27.9%	29.2%	26.0%
Digital Finance	11	9	61	470	1,361	3,266	6,286	9,493	13,680
Growth %		-19.5%	559.1%	672.8%	189.7%	140.0%	92.4%	51.0%	44.1%
Other Services	83	196	132	42	47	53	59	65	73
Growth %		134.6%	-32.7%	-67.8%	11.4%	11.4%	11.4%	11.4%	11.4%
Percentage Contribution (%)									
Gaming	55.9%	52.2%	46.1%	43.4%	37.6%	30.4%	25.7%	21.9%	19.0%
E-commerce	32.6%	38.4%	49.5%	51.5%	52.8%	54.0%	51.9%	51.9%	51.4%
Digital Finance	1.4%	0.4%	1.4%	4.7%	9.3%	15.4%	22.2%	26.0%	29.4%
Other Services	10.1%	9.0%	3.0%	0.4%	0.3%	0.2%	0.2%	0.2%	0.2%
Gaming Revenue									
Revenue	462	1,136	2,016	4,320	5,529	6,460	7,266	8,015	8,842
Quarterly Active Users (QAU)	154	314	521	689	724	753	783	806	830
Growth %		103.6%	65.7%	32.2%	5.0%	4.0%	4.0%	3.0%	3.0%
Quarterly Paying Users (QPU)	7	27	55	85	103	115	126	136	147
% of QAU	4.8%	8.6%	10.6%	12.4%	14.3%	15.3%	16.1%	16.9%	17.7%
Growth %		262.6%	103.1%	55.1%	15.0%	7.5%	5.0%	5.0%	5.0%
Average Revenue Per Paying User (ARPPU)	15	10	9	13	13	14	14	15	15
Growth %		-32.3%	-12.6%	38.2%	6%	5%	3%	2%	2%
E-commerce Revenue									
Revenue	270	834	2,167	5,123	7,770	11,484	14,688	18,974	23,907
3P Revenue	176	624	1,724	4,072	6,191	9,538	11,690	14,492	18,259
% of GMV	1.7%	3.5%	4.9%	6.5%	7.8%	9.8%	9.8%	9.7%	9.7%
1P Revenue	93	211	443	1,051	1,579	1,946	2,998	4,482	5,647
% of GMV	0.9%	1.2%	1.3%	1.7%	2%	2%	3%	3%	3%
Gross Merchandise Value (GMV)	10,279	17,576	35,356	62,600	78,964	97,323	119,902	149,398	188,242
Growth %		71.0%	101.2%	77.1%	26.1%	23.3%	23.2%	24.6%	26.0%
3P GMV	10,186	17,365	34,913	61,549	77,385	95,377	116,905	144,916	182,595
% of GMV	99.1%	98.8%	98.7%	98.3%	98.0%	98.0%	97.5%	97.0%	97.0%
Number of Orders	605	1,212	2,821	6,200	9,300	13,485	18,879	26,431	37,003
Growth %		100.4%	132.8%	119.8%	50%	45%	40%	40%	40%
Average Order Value	17	15	13	10	8	7	6	6	5
Growth %		-14.7%	-13.6%	-19.5%	-16%	-15%	-12%	-11%	-10%
3P GMV	10,186	17,365	34,913	61,549	77,385	95,377	116,905	144,916	182,595
% of GMV	99.1%	98.8%	98.7%	98.3%	98.0%	98.0%	97.5%	97.0%	97.0%
3P Take Rate (%)	1.7%	3.6%	4.9%	6.6%	8%	10%	10%	10%	10%
Gross Take Rate (%)	2.6%	4.7%	6.1%	8.2%	9.8%	11.8%	12.3%	12.7%	12.7%
Digital Finance Revenue									
Revenue (Blended)	11	9	61	470	1,361	3,266	6,286	9,493	13,680
Revenue (ARPPU)			61	470	1,696	4,070	8,262	13,385	20,078
Quarterly Paying Users			17	36	68	109	153	184	220
Growth %				115.0%	90%	60%	40%	20%	20%
Average Revenue Per Paying User (ARPPU)			1	3	6	9	13	18	23
Growth %				259.5%	90%	50%	45%	35%	25%
Revenue (Take Rate)			61	470	1,026	2,462	4,309	5,602	7,283
Total Payment Value (TPV)			7,600	17,100	34,200	61,560	86,184	112,039	145,651
Growth %				125.0%	100%	80%	40%	30%	30%
Take Rate (%)			0.8%	2.7%	3%	4%	5%	5%	5%

	Sea Ltd Expense Model								
Fiscal Year Ending 31/12 (in millions USD otherwise stated)	2018A	2019A	2020A	2021A	2022E	2023E	2024E	2025E	2026E
Summary									
Overall Revenue	827	2,175	4,376	9,955	14,708	21,263	28,298	36,548	46,501
Gaming Revenue	462	1,136	2,016	4,320	5,529	6,460	7,266	8,015	8,842
E-commerce Revenue	270	834	2,167	5,123	7,770	11,484	14,688	18,974	23,907
Digital Finance Revenue	11	9	61	470	1,361	3,266	6,286	9,493	13,680
E-commerce GMV	10,279	17,576	35,356	62,600	78,964	97,323	119,902	149,398	188,242
Digital Finance TPV			7,600	17,100	34,200	61,560	86,184	112,039	145,651
Cost of Revenue									
Cost of Revenue	(812)	(1,570)	(3,027)	(6,059)	(8,756)	(12,397)	(15,319)	(18,978)	(23,649)
Growth %		93.4%	92.7%	100.2%	44.5%	41.6%	23.6%	23.9%	24.6%
Segmentation									
Gaming	(267)	(436)	(702)	(1,230)	(1,382)	(1,615)	(1,671)	(1,683)	(1,857)
Growth %		63.0%	61.1%	75.1%	12.4%	16.8%	3.5%	0.7%	10.3%
% of Gaming Revenue	-57.8%	-38.4%	-34.8%	-28.5%	-25.0%	-25.0%	-23.0%	-21.0%	-21.0%
E-commerce and Other Services	(446)	(908)	(1,744)	(3,826)	(5,903)	(8,656)	(11,101)	(14,005)	(18,072)
Growth %		103.4%	92.1%	119.4%	54.3%	46.6%	28.2%	26.2%	29.0%
% of GMV	-4.3%	-5.2%	-4.9%	-6.1%	-5.1%	-5.1%	-4.5%	-4.5%	-4.5%
% of TPV			-22.9%	-22.4%	-22.7%	-20.0%	-19.5%	-19.0%	-19.0%
Costs of Goods Sold	(99)	(227)	(581)	(1,004)	(1,471)	(2,126)	(2,547)	(3,289)	(3,720)
Growth %		130.3%	155.8%	72.8%	46.6%	44.6%	19.8%	29.2%	13.1%
% of Total Revenue	-11.9%	-10.4%	-13.3%	-10.1%	-10.0%	-10.0%	-9.0%	-9.0%	-8.0%
Ex. Gaming Cost of Revenue	(545)	(1,135)	(2,324)	(4,829)	(7,374)	(10,782)	(13,648)	(17,294)	(21,792)
E-commerce (By % Contribution to Revenue)	(403)	(911)	(2,135)	(4,390)	(6,242)	(8,365)	(9,531)	(11,501)	(13,834)
Change %		126%	134%	106%	42%	34%	14%	21%	20%
Digital Finance	(17)	(10)	(60)	(403)	(1,093)	(2,379)	(4,079)	(5,754)	(7,916)
Change %		-41%	495%	572%	172%	118%	71%	41%	38%
Others (By % Contribution to Revenue)	(125)	(214)	(130)	(36)	(38)	(38)	(38)	(40)	(42)
Change %		71%	-39%	-72%	4%	1%	-1%	4%	6%
Operating Expenses									
Sales and marketing expenses	(705)	(970)	(1,831)	(3,830)	(4,933)	(6,030)	(7,225)	(8,494)	(10,744)
Gaming	(68)	(109)	(165)	(357)	(276)	(194)	(196)	(216)	(239)
Growth %		59.0%	52.4%	116.0%	-22.6%	-29.9%	1.2%	10.3%	10.3%
% of Gaming Revenue	-14.8%	-9.6%	-8.2%	-8.3%	-5.0%	-3.0%	-2.7%	-2.7%	-2.7%
E-commerce	(603)	(765)	(1,220)	(2,630)	(3,159)	(3,893)	(4,796)	(5,976)	(7,530)
Growth %		-21.3%	27.0%	59.3%	159.0%	23.3%	23.2%	24.6%	26.0%
% of GMV	-5.9%	-4.4%	-3.4%	-4.2%	-4.0%	-4.0%	-4.0%	-4.0%	-4.0%
Digital Finance			(415)	(743)	(1,197)	(1,539)	(1,724)	(1,681)	(2,185)
Growth %				78.8%	61.2%	28.6%	12.0%	-2.5%	30.0%
% of TPV			-5.5%	-4.3%	-3.5%	-2.5%	-2.0%	-1.5%	-1.5%
Others	(34)	(96)	(31)	(101)	(301)	(404)	(509)	(621)	(791)
Growth %		182.3%	-67.4%	224.2%	197.2%	34.4%	26.1%	22.0%	27.2%
% of Total Revenue	-4.1%	-4.4%	-0.7%	-1.0%	-2.0%	-1.9%	-1.8%	-1.7%	-1.7%
General and administrative expenses	(241)	(386)	(657)	(1,105)	(1,471)	(1,914)	(2,264)	(2,558)	(2,790)
Growth %		60.3%	70.3%	68.2%	33.1%	30.1%	18.3%	13.0%	9.1%
% of Total Revenue	-29.1%	-17.7%	-15.0%	-11.1%	-10.0%	-9.0%	-8.0%	-7.0%	-6.0%
Gaming (By % Contribution to Revenue)	(135)	(202)	(303)	(480)	(553)	(581)	(581)	(561)	(531)
E-commerce (By % Contribution to Revenue)	(78)	(148)	(326)	(569)	(777)	(1,034)	(1,175)	(1,328)	(1,434)
Digital Finance (By % Contribution to Revenue)	(3)	(2)	(9)	(52)	(136)	(294)	(503)	(665)	(821)
Research and development expenses	(68)	(157)	(354)	(832)	(1,169)	(1,691)	(2,250)	(2,906)	(3,698)
Growth %		132.0%	125.9%	135.1%	40.6%	44.6%	33.1%	29.2%	27.2%
% of Total Revenue	-8.2%	-7.2%	-8.1%	-8.4%	-8.0%	-8.0%	-8.0%	-8.0%	-8.0%
Gaming (By % Contribution to Revenue)	(38)	(82)	(163)	(361)	(440)	(514)	(578)	(637)	(703)
E-commerce (By % Contribution to Revenue)	(22)	(60)	(175)	(428)	(618)	(913)	(1,168)	(1,509)	(1,901)
Digital Finance (By % Contribution to Revenue)	(1)	(1)	(5)	(39)	(108)	(260)	(500)	(755)	(1,088)
Operating Income	10	16	190	288	336	486	647	835	1,063
Growth %		62.2%	1093.5%	51.8%	16.7%	44.6%	33.1%	29.2%	27.2%
% of Total Revenue	1.2%	0.7%	4.3%	2.9%	2.3%	2.3%	2.3%	2.3%	2.3%
Gaming (By % Contribution to Revenue)	5	8	87	125	126	148	166	183	202
E-commerce (By % Contribution to Revenue)	3	6	94	148	178	262	336	434	546
Digital Finance (By % Contribution to Revenue)	0	0	3	14	31	75	144	217	313
Income Tax Expense									
Pre-Tax Income (Loss)	(954)	(1,369)	(1,483)	(1,715)	(1,750)	(746)	1,477	4,106	6,437
Tax Expense	(4)	(86)	(142)	(333)	297	127	(251)	(698)	(1,094)
Effective Tax Rate %	0.4%	6.3%	9.5%	19.4%	17.0%	17.0%	17.0%	17.0%	17.0%

	Sea Ltd Working Capital								
Fiscal Year Ending 31/12 (In millions USD otherwise stated)	2018A	2019A	2020A	2021A	2022E	2023E	2024E	2025E	2026E
Total Revenue	827	2,175	4,376	9,955	14,708	21,263	28,298	36,548	46,501
Total COGS	(812)	(1,570)	(3,027)	(6,059)	(8,756)	(12,397)	(15,319)	(18,978)	(23,649)
Current Assets									
Inventories, Net	38	27	64	117	148	209	259	320	399
Days Inventory Outstanding		8	5	5	6.16	6.16	6.16	6.16	6.16
Accounts Receivables, Net	98	187	363	388	814	1,177	1,566	2,023	2,574
Days Sales Outstanding		24	23	14	20.20	20.20	20.20	20.20	20.20
Prepaid Expenses and Other Assets	312	535	1,054	1,402	3,697	5,345	7,114	9,187	11,690
% of Revenue	37.8%	24.6%	24.1%	14.1%	25.1%	25.1%	25.1%	25.1%	25.1%
Amounts due from related parties	5	5	19	16	45	64	86	111	141
% of Revenue	0.6%	0.2%	0.4%	0.2%	0.3%	0.3%	0.3%	0.3%	0.3%
Current Liabilities									
Accounts payable	37	69	122	214	272	385	476	589	734
Days Payable Outstanding		12	12	10	11.33	11.33	11.33	11.33	11.33
Accrued expenses and other payables	637	981	2,033	3,531	5,493	7,777	9,609	11,905	14,835
% of COGS	-78.4%	-62.5%	-67.2%	-58.3%	-62.7%	-62.7%	-62.7%	-62.7%	-62.7%
Advances from customers	29	65	161	245	452	653	869	1,123	1,429
% of Revenue	3.5%	3.0%	3.7%	2.5%	3.1%	3.1%	3.1%	3.1%	3.1%
Deferred revenue	427	1,098	2,150	2,644	5,567	8,048	10,711	13,834	17,601
% of Revenue	51.6%	50.5%	49.1%	26.6%	37.9%	37.9%	37.9%	37.9%	37.9%
Income tax payable	10	27	52	181	207	293	362	448	558
% of COGS	-1.2%	-1.7%	-1.7%	-3.0%	-2.4%	-2.4%	-2.4%	-2.4%	-2.4%
Amounts due to related parties	46	35	43	75	116	164	202	251	312
% of COGS	-5.7%	-2.2%	-1.4%	-1.2%	-1.3%	-1.3%	-1.3%	-1.3%	-1.3%
Changes in Net Operating Working Capital (NOWC)									
Inventories, Net	(28)	12	(39)	(53)	(30)	(61)	(49)	(62)	(79)
Accounts Receivables, Net	(39)	(87)	(175)	(25)	(426)	(363)	(389)	(457)	(551)
Prepaid Expenses and Other Assets	(159)	(215)	(527)	(348)	(2,295)	(1,648)	(1,769)	(2,074)	(2,502)
Amounts due from related parties	(3)	1	(11)	3	(28)	(20)	(21)	(25)	(30)
Change in Current Operating Assets	(229)	(289)	(751)	(423)	(2,780)	(2,092)	(2,229)	(2,617)	(3,162)
Accounts payable	30	31	51	92	58	113	91	114	145
Accrued expenses and other payables	355	354	944	1,498	1,961	2,284	1,833	2,295	2,930
Advances from customers	3	34	93	83	207	201	216	253	306
Deferred revenue	204	637	1,162	494	2,923	2,481	2,663	3,122	3,768
Income tax payable	(0)	17	26	129	25	86	69	86	110
Amounts due to related parties	11	(12)	1	32	41	48	39	48	62
Change in Current Operating Liabilities	602	1,062	2,276	2,328	5,216	5,214	4,910	5,919	7,321
Total Change in NOWC	373	773	1,525	1,906	2,436	3,122	2,682	3,302	4,159

	Sea Ltd PPE Schedule								
Fiscal Year Ending 31/12 (In millions USD otherwise stated)	2018A	2019A	2020A	2021A	2022E	2023E	2024E	2025E	2026E
Revenue	826.97	2175.38	4375.66	9955.19	14707.69	21263.13	28298.47	36547.74	46501.48
PPE Schedule									
Computers	208.44	339.22	522.11	883.25	1825.43	3187.56	5000.37	7341.64	10320.55
Office Equipment, Furniture and Fittings	15.45	24.88	31.61	43.06	88.99	155.40	243.78	357.92	503.15
Leasehold Improvements	63.78	129.30	162.03	252.78	522.42	912.25	1431.06	2101.11	2953.65
Transportation Assets	5.07	14.62	6.18	208.70	431.33	753.18	1181.53	1734.74	2438.62
Warehouse Equipment	0.00	3.46	7.30	20.80	42.98	75.05	117.73	172.86	243.00
Land	0.00	20.60	22.71	196.42	218.60	250.68	293.36	348.48	418.62
Building	0.00	0.81	2.09	1.96					
Construction in Progress	0.00	0.00	0.97	22.95	232.48	535.40	938.54	1459.20	2121.66
Total PPE, at cost	292.74	532.90	755.01	1629.91	3362.24	5869.51	9206.37	13515.95	18999.25
Less: Accumulated Depreciation	100.38	214.28	368.40	599.95	1130.25	2166.63	3876.54	6456.31	10142.85
Net PPE	192.36	318.62	386.61	1029.96	2231.99	3702.88	5329.83	7059.65	8856.40
PPE									
FY2021 PPE:	Value	% of total PPE	Average Useful Life	% of CAPEX					
Computers	883.25	54.2%	4 yrs	55.0%					
Office Equipment, Furniture and Fittings	43.06	2.6%	3 yrs	2.7%					
Leasehold Improvements	252.78	15.5%	5 yrs	15.7%					
Transportation Assets	208.70	12.8%	7 yrs	13.0%					
Warehouse Equipment	20.80	1.3%	6 yrs	1.3%					
Land	196.42	12.1%	23 yrs	12.2%					
Building	1.96	0.1%	18 yrs	0.1%					
Construction in Progress	22.95	1.4%	0 yrs						
Total PPE	1629.91								
Capital Expenditure	177.34	239.84	336.27	643.56	1714.18	2478.22	3298.19	4259.64	5419.75
% of Revenue	21%	11%	8%	6%	12%	12%	12%	12%	12%
CAPEX Added To:									
Computers					942.18	1362.13	1812.81	2341.27	2978.91
Office Equipment, Furniture and Fittings					45.93	66.41	88.38	114.14	145.23
Leasehold Improvements					269.64	389.83	518.81	670.05	852.54
Transportation Assets					222.63	321.85	428.35	553.21	703.88
Warehouse Equipment					22.18	32.07	42.68	55.12	70.14
Land					209.53	302.92	403.14	520.66	662.46
Building					2.09	3.02	4.01	5.18	6.60

Sea Ltd PPE Schedule									
Fiscal Year Ending 31/12 (In millions USD otherwise stated)	2018A	2019A	2020A	2021A	2022E	2023E	2024E	2025E	2026E
Depreciation									
Existing Depreciation of PPE	54.90	116.78	169.07	180.25	180.25	180.25	180.25	180.25	180.25
New Depreciation of PPE					350.05	856.13	1529.66	2399.52	3506.29
Total Depreciation	54.90	116.78	169.07	180.25	530.30	1036.38	1709.91	2579.77	3686.54
Depreciation of Existing PPE	54.90	116.78	169.07	180.25	180.25	180.25	180.25	180.25	180.25
Depreciation of New PPE									
Computers									
				CAPEX					
			FY2022F	942.18	235.55	235.55	235.55	235.55	235.55
			FY2023F	1362.13		340.53	340.53	340.53	340.53
			FY2024F	1812.81			453.20	453.20	453.20
			FY2025F	2341.27				585.32	585.32
			FY2026F	2978.91					744.73
					235.55	576.08	1029.28	1614.60	2359.33
Office Equipment, Furniture and Fittings									
				CAPEX					
			FY2022F	45.93	15.31	15.31	15.31	15.31	15.31
			FY2023F	66.41		22.14	22.14	22.14	22.14
			FY2024F	88.38			29.46	29.46	29.46
			FY2025F	114.14				38.05	38.05
			FY2026F	145.23					48.41
					15.31	37.45	66.91	104.95	153.36
Leasehold Improvements									
				CAPEX					
			FY2022F	269.64	53.93	53.93	53.93	53.93	53.93
			FY2023F	389.83		77.97	77.97	77.97	77.97
			FY2024F	518.81			103.76	103.76	103.76
			FY2025F	670.05				134.01	134.01
			FY2026F	852.54					170.51
					53.93	131.89	235.66	369.67	540.17
Transportation Assets									
				CAPEX					
			FY2022F	222.63	31.80	31.80	31.80	31.80	31.80
			FY2023F	321.85		45.98	45.98	45.98	45.98
			FY2024F	428.35			61.19	61.19	61.19
			FY2025F	553.21				79.03	79.03
			FY2026F	703.88					100.55
					31.80	77.78	138.98	218.01	318.56
Warehouse Equipment									
				CAPEX					
			FY2022F	22.18	4.03	4.03	4.03	4.03	4.03
			FY2023F	32.07		5.83	5.83	5.83	5.83
			FY2024F	42.68			7.76	7.76	7.76
			FY2025F	55.12				10.02	10.02
			FY2026F	70.14					12.75
					4.03	9.86	17.62	27.65	40.40
Land									
				CAPEX					
			FY2022F	209.53	9.31	9.31	9.31	9.31	9.31
			FY2023F	302.92		13.46	13.46	13.46	13.46
			FY2024F	403.14			17.92	17.92	17.92
			FY2025F	520.66				23.14	23.14
			FY2026F	662.46					29.44
					9.31	22.78	40.69	63.83	93.28
Building									
				CAPEX					
			FY2022F	2.09	0.12	0.12	0.12	0.12	0.12
			FY2023F	3.02		0.17	0.17	0.17	0.17
			FY2024F	4.01			0.23	0.23	0.23
			FY2025F	5.18				0.30	0.30
			FY2026F	6.60					0.38
					0.12	0.29	0.52	0.82	1.19

	Sea Ltd Debt Schedule								
Fiscal Year Ending 31/12 (In millions USD otherwise stated)	2018A	2019A	2020A	2021A	2022E	2023E	2024E	2025E	2026E
Interest Expense					(341)	(340)	(287)	(217)	(123)
Cashflow before short-term/revolver borrowings									
Cash from Operations					1,639	3,447	5,163	8,331	11,562
Cash from Investing					(951)	(1,375)	(1,829)	(2,363)	(3,006)
Cash from Financing (ex revolver)					(228)	30	(74)	(871)	(2,329)
(+) Beginning cash balance					9,248	9,707	11,810	15,070	20,168
(+) New long-term borrowings					0	0	0	0	0
(-) Target minimum cash balance					8000.00	8000.00	8000.00	8000.00	8000.00
Available cash before short-term borrowings					1,707	3,810	7,070	12,168	18,395
Debt	Principle Amount	Maturity	Effective I/R	Weighted I/R	Value (FY21)				
2023 Convertible Notes	575	2023	9.38%	0.94%	28				
Liability Component	411								
Equity Component	153								
Debt Issuance Cost	11								
2024 Convertible Notes	1,150	2024	6.03%	1.21%	132				
Liability Component	898								
Equity Component	241								
Debt Issuance Cost	12								
2025 Convertible Notes	1,150	2025	8.21%	1.64%	929				
Liability Component	857								
Equity Component	285								
Debt Issuance Cost	9								
2026 Convertible Notes	2,875	2026	4.27%	2.14%	2,387				
Liability Component	2,359								
Equity Component	487								
Debt Issuance Cost	29								
Short Term Debt									
Lease Liabilities (Current Portion)									
Beginning Balance					186.49	0.00	0.00	0.00	0.00
Additions					0.00	0.00	0.00	0.00	0.00
Repayment					(186.49)	0.00	0.00	0.00	0.00
Ending Balance	0	56	75	186	0.00	0.00	0.00	0.00	0.00
Long Term Debt									
Convertible Notes					2022	2023	2024	2025	2026
Beginning Balance					3475.71	3475.71	3447.50	3315.97	2387.29
Additions					0.00	0.00	0.00	0.00	0.00
Repayment					0.00	(28.21)	(131.53)	(928.68)	(2387.29)
Ending Balance	1061.80	1356.33	1840.41	3475.71	3475.71	3447.50	3315.97	2387.29	0.00
Interest Expense (Convertible Notes)					(340.46)	(340.46)	(286.52)	(217.18)	(122.76)
Lease Liabilities									
Beginning Balance					491.31	549.31	607.31	665.31	723.30
Additions		144.00	33.87	313.44	163.77	163.77	163.77	163.77	163.77
Repayment					(105.77)	(105.77)	(105.77)	(105.77)	(105.77)
Ending Balance	0	144	178	491	549.31	607.31	665.31	723.30	781.30
Revolving Credit Facility									
Revolving Credit Facility									
Effective Interest rate:	0.93%								
Beg. Balance					100	-	-	-	-
(+) Drawdown					0	0	0	0	0
(-) Repayment					(100)	0	0	0	0
End. Balance				100.0	-	-	-	-	-
Interest Expense (Revolver)					(0.47)	0.00	0.00	0.00	0.00

Sea Ltd
SOTP

Fiscal Year Ending 31/12 (in millions USD otherwise stated)	2018A	2019A	2020A	2021A	2022E	2023E	2024E	2025E	2026E
Garena									
Revenue	462	1,136	2,016	4,320	5,529	6,460	7,266	8,015	8,842
Cost of Revenue	(267)	(436)	(702)	(1,230)	(1,382)	(1,615)	(1,671)	(1,683)	(1,857)
Gross Profit	195	700	1,314	3,090	4,147	4,845	5,595	6,332	6,985
Operating Expenses									
Other operating income	5	8	87	125	126	148	166	183	202
Sales and marketing expenses	(68)	(109)	(165)	(357)	(276)	(194)	(196)	(216)	(239)
General and administrative expenses	(135)	(202)	(303)	(480)	(553)	(581)	(581)	(561)	(531)
Research and development expenses	(38)	(82)	(163)	(361)	(440)	(514)	(578)	(637)	(703)
Total Operating Expenses	(235)	(384)	(544)	(1,073)	(1,143)	(1,141)	(1,189)	(1,232)	(1,270)
Operating Income (Loss)	(40)	317	770	2,017	3,004	3,704	4,406	5,100	5,715
EBITDA Margin %	-9%	28%	38%	47%	54%	57%	61%	64%	65%
Shopee									
Revenue	270	834	2,167	5,123	7,770	11,484	14,688	18,974	23,907
Cost of Revenue	(403)	(911)	(2,135)	(4,390)	(6,242)	(8,365)	(9,531)	(11,501)	(13,834)
Gross Profit	(133)	(76)	32	733	1,528	3,119	5,157	7,473	10,073
Operating Expenses									
Other operating income	3	6	94	148	178	262	336	434	546
Sales and marketing expenses	(603)	(765)	(1,220)	(2,630)	(3,159)	(3,893)	(4,796)	(5,976)	(7,530)
General and administrative expenses	(78)	(148)	(326)	(569)	(777)	(1,034)	(1,175)	(1,328)	(1,434)
Research and development expenses	(22)	(60)	(175)	(428)	(618)	(913)	(1,168)	(1,509)	(1,901)
Total Operating Expenses	(700)	(967)	(1,626)	(3,479)	(4,376)	(5,577)	(6,803)	(8,379)	(10,319)
Operating Income (Loss)	(833)	(1,044)	(1,594)	(2,746)	(2,848)	(2,458)	(1,646)	(906)	(246)
EBITDA Margin %	-309.1%	-125.1%	-73.6%	-53.6%	-36.7%	-21.4%	-11.2%	-4.8%	-1.0%
Sea Money									
Revenue	11	9	61	470	1,361	3,266	6,286	9,493	13,680
Cost of Revenue	(17)	(10)	(60)	(403)	(1,093)	(2,379)	(4,079)	(5,754)	(7,916)
Gross Profit	(6)	(1)	1	67	268	887	2,207	3,739	5,764
Operating Expenses									
Other operating income	0	0	3	14	31	75	144	217	313
Sales and marketing expenses			(415)	(743)	(1,197)	(1,539)	(1,724)	(1,681)	(2,185)
General and administrative expenses	(3)	(2)	(9)	(52)	(136)	(294)	(503)	(665)	(821)
Research and development expenses	(1)	(1)	(5)	(39)	(108)	(260)	(500)	(755)	(1,088)
Total Operating Expenses	(4)	(2)	(427)	(821)	(1,410)	(2,018)	(2,583)	(2,883)	(3,781)
Operating Income (Loss)	(10)	(3)	(426)	(753)	(1,143)	(1,131)	(376)	856	1,983
EBITDA Margin %	-85.6%	-33.4%	-700.7%	-160.4%	-84.0%	-34.6%	-6.0%	9.0%	14.5%
Others									
Revenue	83	196	132	42	47	53	59	65	73
Cost of Revenue	(125)	(214)	(130)	(36)	(38)	(38)	(38)	(40)	(42)
Gross Profit	(41)	(18)	2	6	9	14	21	26	31
Operating Expenses									
Other operating income	1	1	6	1	1	1	1	1	2
Sales and marketing expenses	(34)	(96)	(31)	(101)	(301)	(404)	(509)	(621)	(791)
General and administrative expenses	(24)	(35)	(20)	(5)	(5)	(5)	(5)	(5)	(4)
Research and development expenses	(7)	(14)	(11)	(4)	(4)	(4)	(5)	(5)	(6)
Total Operating Expenses	(64)	(143)	(56)	(108)	(308)	(412)	(517)	(630)	(799)
Operating Income (Loss)	(105)	(161)	(54)	(102)	(299)	(397)	(497)	(604)	(768)
EBITDA Margin %	-126.2%	-82.3%	-41.0%	-240.6%	-632.1%	-754.9%	-847.2%	-924.7%	-1056.4%

Sea Ltd WACC

WACC Buildup

WACC	
Risk Free Rate - US 10Y Treasury Yield	2.4%
Levered Beta	1.43
Equity Risk Premium (Rm-Rf) - SPY 5Y Returns	5.99%
Company Risk Premium	1.89%
Cost of Equity	12.86%
Pre-tax cost of debt	3.50%
Tax Rate	17.0%
Tax Adjusted Cost of Debt	2.91%
Market Cap (US\$ million)	42,817
Total Debt	3,967
Proportion of Equity Capital	91.5%
Proportion of Debt Capital	8.5%
WACC	12.02%

Peer Comparables

Garena Comparables	+1FY P/E	+1FY EV/EBITDA	+1FY EV/Sales	
Ubisoft Entertainment SA (ENXTPA:UBI)	17.6x	5.2x	2.5x	
Ncssoft Corporation (KOSX:A036570)	16.5x	9.5x	2.8x	
Activision Blizzard, Inc. (NasdaqGS:ATVI)	22.3x	15.4x	6.5x	
NEXON Co., Ltd. (TSE:3659)	25.0x	15.8x	6.4x	
Playtika Holding Corp. (NasdaqGS:PLTK)	20.5x	9.1x	3.3x	
Lowest	16.5x	5.2x	2.5x	
25th Percentile	17.6x	9.1x	2.8x	
Median	20.5x	9.5x	3.3x	
75th Percentile	22.3x	15.4x	6.4x	
Highest	25.0x	15.8x	6.5x	
Shopee Comparables	+1FY P/E	+1FY EV/EBITDA	+1FY EV/Sales	+1FY EV/GMV
Amazon.com, Inc. (NasdaqGS:AMZN)	69.5x	21.1x	3.3x	2.3x
eBay Inc. (NasdaqGS:EBAY)	13.5x	10.0x	3.5x	0.4x
MercadoLibre, Inc. (NasdaqGS:MEU)	146.7x	71.5x	6.5x	1.6x
JD.com, Inc. (NasdaqGS:JD)	28.9x	18.8x	0.4x	0.1x
Alibaba Group Holding Limited (NYSE:BABA)	14.1x	11.2x	2.1x	0.2x
Rakuten Group, Inc. (TSE:4755)	-	7.8x	0.3x	-0.8x
Zalando SE (XTRA:ZAL)	52.1x	15.9x	1.0x	0.7x
Coupang, Inc. (NYSE:CPNG)	-	-	1.3x	1.1x
Lowest	13.5x	7.8x	0.3x	-0.8x
25th Percentile	17.8x	10.6x	0.7x	0.2x
Median	40.5x	15.9x	2.1x	0.4x
75th Percentile	65.1x	19.9x	3.4x	1.2x
Highest	146.7x	71.5x	6.5x	2.3x
Sea Money Comparables	+1FY P/E	+1FY EV/EBITDA	+1FY EV/Sales	
PayPal Holdings, Inc. (NasdaqGS:PYPL)	25.0x	17.7x	4.6x	
Fiserv, Inc. (NasdaqGS:FISV)	15.6x	12.5x	5.3x	
Mastercard Incorporated (NYSE:MA)	34.0x	26.2x	15.6x	
Visa Inc. (NYSE:V)	31.0x	23.6x	16.4x	
Block, Inc. (NYSE:SQ)	108.4x	93.5x	4.2x	
Adyen N.V. (ENXTAM:ADYEN)	84.1x	57.1x	36.3x	
Upstart Holdings, Inc. (NasdaqGS:UPST)	46.9x	35.8x	6.3x	
Lowest	15.6x	12.5x	4.2x	
25th Percentile	28.0x	20.6x	5.0x	
Median	34.0x	26.2x	6.3x	
75th Percentile	65.5x	46.5x	16.0x	
Highest	108.4x	93.5x	36.3x	

Region/Country	Market Risk Premium
Southeast Asia	1.7%
Indonesia	1.9%
Singapore	0.0%
Malaysia	1.2%
Philippines	1.9%
Thailand	1.6%
Vietnam	3.6%
Latin America	3.8%
Brazil	3.0%
Mexico	1.6%
Chile	0.7%
Colombia	1.9%
Argentina	11.9%
Rest of Asia	0.6%
Taiwan	0.6%
Rest of the world	1.2%
Poland	0.8%
Spain	1.6%

Revenue by Geography (2020)		
Southeast Asia	2,792	64%
Latin America	790	18%
Rest of Asia	655	15%
Rest of world	138	3%
Total	4,376	

Region	Market Risk Premium
Southeast Asia	2%
Latin America	4%
Rest of Asia	1%
Rest of the world	1%

Sea Ltd
DCF

Model Assumptions

Effective Tax Rate	17.0%
Discount Rate	12.0%
Valuation Date	2022-05-08
Current Share Price	76.20
Outstanding Shares (millions)	561.9

Free Cash Flow Calculation

Fiscal Year Ending 31/12 (In millions USD otherwise stated)	2018A	2019A	2020A	2021A	2022E	2023E	2024E	2025E	2026E
Revenue	827	2,175	4,376	9,955	14,708	21,263	28,298	36,548	46,501
Growth %		163.1%	101.1%	127.5%	47.7%	44.6%	33.1%	29.2%	27.2%
EBITDA	(989)	(891)	(1,303)	(1,583)	(1,285)	(282)	1,887	4,447	6,684
Margin %		-41.0%	-29.8%	-15.9%	-8.7%	-1.3%	6.7%	12.2%	14.4%
EBIT	(910)	(770)	(1,123)	(1,403)	(755)	754	3,597	7,026	10,370
Margin %	-110.0%	-35.4%	-25.7%	-14.1%	-5.1%	3.5%	12.7%	19.2%	22.3%
Income Tax	(4)	(86)	(142)	(333)	297	127	(251)	(698)	(1,094)
Tax Rate %	0.4%	6.3%	9.5%	19.4%	17.0%	17.0%	17.0%	17.0%	17.0%
NOPAT	(914)	(855)	(1,264)	(1,736)	(457)	881	3,346	6,328	9,276
Margin %		-39.3%	-28.9%	-17.4%	-3.1%	4.1%	11.8%	17.3%	19.9%
Add: D&A	79	122	181	180	530	1,036	1,710	2,580	3,687
% of Revenue		5.6%	4.1%	1.8%	3.6%	4.9%	6.0%	7.1%	7.9%
Less: CAPEX	(177)	(240)	(336)	(644)	(951)	(1,375)	(1,829)	(2,363)	(3,006)
% of Revenue		-11.0%	-7.7%	-6.5%	-6.5%	-6.5%	-6.5%	-6.5%	-6.5%
Less: Increase in NOWC	373	773	1,525	1,906	2,436	3,122	2,682	3,302	4,159
% of Revenue		35.5%	34.9%	19.1%	16.6%	14.7%	9.5%	9.0%	8.9%
Unlevered Free Cash Flow	(640)	(200)	105	(293)	1,558	3,665	5,908	9,848	14,115
Discount Period					0.5	1.5	2.5	3.5	4.5
Discount Factor					0.94	0.84	0.75	0.67	0.60
Discounted Free Cash Flow					1,472	3,091	4,448	6,619	8,470

DCF Valuation

Perpetuity Growth Method	
Total PV of Projected FCFF	24,101
Long Term Growth Rate	2.0%
Final Year FCFF	14,115
Terminal Value	143,702
PV of Terminal Value	86,229

Enterprise Value	110,329
Less: Debt	3,967
Add: Cash	9,248
Less: Minority Interest	26
Implied Equity Value	119,551
Number of shares outstanding	562
Implied Equity Value Per Share	212.76
Upside/Downside	179.2%

Exit Multiple Method	
Total PV of Projected FCFF	24,101
Terminal Year EBITDA	6,684
Exit EV/EBITDA	17.2x
Terminal Value	114,893
PV of Terminal Value	68,942

Enterprise Value	93,042
Less: Debt	3,967
Add: Cash	9,248
Less: Minority Interest	26
Implied Equity Value	98,297
Number of shares outstanding	562
Implied Equity Value Per Share	174.94
Upside/Downside	129.6%

		WACC				
Terminal Growth Rate		11.4%	11.9%	12.4%	12.9%	13.4%
	1.0%	197.47	197.47	197.47	197.47	197.47
	1.5%	204.75	204.75	204.75	204.75	204.75
	2.0%	212.76	212.76	212.76	212.76	212.76
	2.5%	221.62	221.62	221.62	221.62	221.62
	3.0%	231.45	231.45	231.45	231.45	231.45

		WACC				
Exit Multiple		11.4%	11.9%	12.4%	12.9%	13.4%
	15.2x	164.29	161.44	158.66	155.95	153.29
	16.2x	171.62	168.62	165.70	162.84	160.05
	17.2x	178.94	175.80	172.73	169.74	166.81
	18.2x	186.26	182.98	179.77	176.63	173.57
	19.2x	193.59	190.15	186.80	183.53	180.33

Sea Ltd

SOTP

Implied Values

Applicable Figures (Garena)		Bull	Base	Bear
+1FY EV/EBITDA	3,704	15.4x	9.5x	5.2x
Implied EV		56,928	35,260	19,149
+1FY EV/Sales	6,460	6.4x	3.3x	2.5x
Implied EV		41,280	21,060	16,150
Implied EV Used		49,104	28,160	17,649

Applicable Figures (Shopee)		Bull	Base	Bear
+1FY EV/EBITDA	(2,458)	19.9x	15.9x	7.8x
Implied EV		(49,008)	(39,054)	(19,146)
+1FY EV/Sales	11,484	3.4x	2.1x	0.7x
Implied EV		38,931	23,887	8,039
+1FY EV/GMV	97,323	1.2x	0.4x	0.2x
Implied EV		111,922	38,929	14,599
Implied EV Used		75,427	31,408	11,319

Applicable Figures (SeaMoney)		Bull	Base	Bear
+1FY EV/EBITDA	(1,131)	46.5x	26.2x	12.5x
Implied EV		(52,532)	(29,582)	(14,169)
+1FY EV/Sales	3,266	16.0x	6.3x	4.2x
Implied EV		52,342	20,545	13,816
Implied EV Used		52,342	20,545	13,816

Applicable Figure (Others)		Bull	Base	Bear
+1FY EV/EBITDA	(397)	93.5x	26.2x	12.5x
Implied EV		(37,163)	(10,397)	(4,980)
+1FY EV/Sales	53	36.3x	6.3x	4.2x
Implied EV		1,912	331	223
Implied EV Used		1,912	331	223

	Bull	Base	Bear
Total Enterprise Value	178,784	80,444	43,007
Less: Debt	3,576	3,576	3,576
Add: Cash	9,248	9,248	9,248
Less: Minority Interest	26	26	26
Implied Equity Value	184,431	86,091	48,653
Number of shares outstanding	562	562	562
Implied Equity Value Per Share	328.23	153.21	86.59
Upside/Downside	330.7%	101.1%	13.6%

	Min/Low	Mean/Median	High/Max	Proportion
DCF (Gordon Growth Method)	197	212.76	231	10%
DCF (Exit Multiple Method)	153	174.94	187	10%
SOTP	87	153.21	328	80%
Target Price	104.35	161.34	304.41	