CFA Institute Research Challenge

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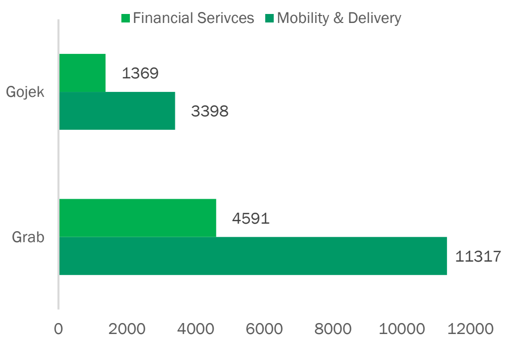
Recommendation

DATE	28/12/2022
RECOMMENDATION	BUY
UPSIDE	+20.1%
CURRENT PRICE	USD 3.15
TARGET PRICE	USD 3.78
INDUSTRY	SOFTWARE,TECHNOLOGY
TICKER	GRAB
STOCK EXCHANGE	NASDAQ

Figure 1: Unit of economics for a mobility ride in $

Consumer	
COST OF RIDE	13.00
TOLLS AND OTHER FEES	0.80
GRAB PLATFORM FEE	0.20
GMV (TOTAL BEFORE INCENTIVES)	14.00
CONSUMER INCENTIVES	(1)
CONSUMER PAYS	13.00
Driver-Partner	
GMV (TOTAL BEFORE INCENTIVES)	14.00
INCLUDING GRAB PLATFORM FEE	0.20
INCLUDING CONSUMER INCENTIVES	1.00
COMISSIONS	(2.60)
DRIVER-PARTNER INCENTIVES	1.00
DRIVER RECEIVES	12.40
Grab	
GMV (TOTAL BEFORE INCENTIVES)	14.00
COMISSIONS	2.60
DRIVER-PARTNER INCENTIVES	(1)
CONSUMER INCENTIVES	(1)
REVENUE	0.60

Figure 2: Total GMV ($Billion) comparison between Grab & Gojek



Source: Company Data; Team Consensus

We initiate coverage on Grab holding Limited (GRAB) with a BUY recommendation based on a 12-month price target of $3.78 based on our discounted cash flow (DCF) model and relative valuation. Our target price represents a 20.1% upside from the last close of $3.15 on 28 December 2022.

BUSINESS DESCRIPTION

Headquartered in Singapore, Grab Holding Limited operates in 500 cities across eight countries providing user access to on-demand transportation, food, grocery delivery, financial services, and other enterprise services. Over the years, Grab has become a strong icon in Southeast Asia (SEA), synonymous with reliability, convenience, safety, and quality. This feat was achieved through its strategic business decisions and developments that allowed them to be equipped with a competitive edge that surpasses its peers.

BUSINESS MODEL

Grab Holdings operates a business-to-consumer model, providing various services such as ride-hailing, ride-sharing, food and package delivery, digital payments and financial management to individuals and businesses through its mobile app. The company generates revenue by taking a commission on every ride (Figure 1), delivery and transaction made through the app, and by offering business-to-business solutions where it charges businesses for using its transportation services through subscription and annual fees.

TABLE.1: SNAPSHOT OF GRAB BUSINESS SEGMENTS

Business segments	Market Share	Revenue Sources	Services
Mobility	78%	Commission based on value of trip	GrabCar, GrabHitch, GrabShare
Delivery	55%	Commission based on value of transaction value	GrabFood, GrabMart
Financial Services	0.70%	Transaction fees	GrabPay, GXS Bank
Enterprise & new Initiatives	NIL	Subscription, Transaction fees, Advertisement	GrabForBusiness, GrabUnlimited

INDUSTRY ANALYSIS

ACCELERATED DIGITALIZATION OF SOUTHEAST ASIAN ECONOMY

Growth in internet economy: The SEA internet economy is on track to reach a staggering $200 billion in gross merchandise value (GMV) by 2025, a full three years ahead of initial projections. This growth can be attributed to the ongoing shift towards online services and e-commerce, triggered by the Covid-19 pandemic. The pandemic has accelerated the adoption of digital technology in SEA, adding 20 million new internet users in 2022, bringing the total to 460 million.

Figure 3: % of users who increased frequency of food delivery (vs. Pre-Covid)

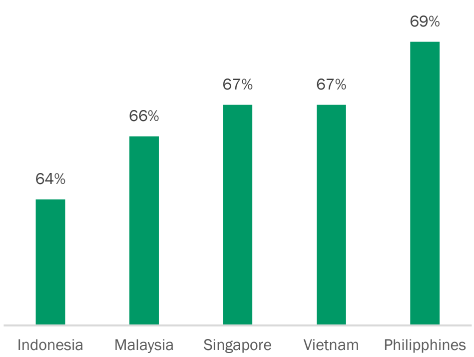


Figure 4: Food delivery market GMV in SEA

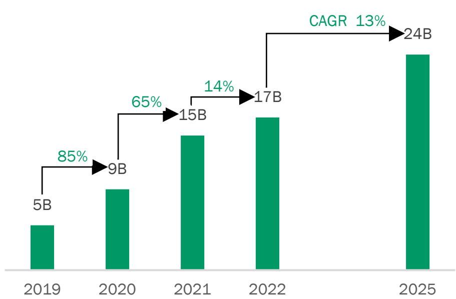


Figure 5: Commute time by public transport

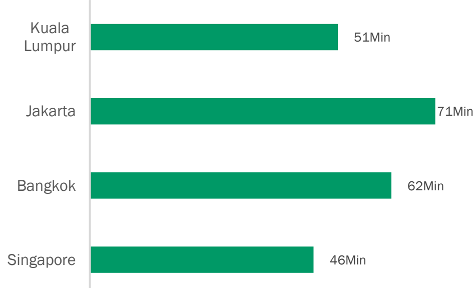
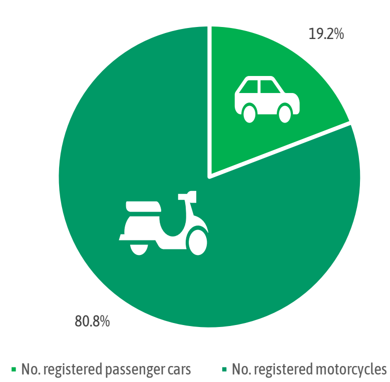


Figure 6: Ratio of 2&3 wheels vehicle vs 4 wheels in SEA



Online spending habit is here to stay: Furthermore, a report by Bain, Google and Temasek shows that this trend is likely to continue even as the pandemic subsides, with over 98% of new internet users across SEA intending to stick with the online services they adopted during the pandemic. Additionally, existing internet users have reported increased usage and spending, with 60% of existing food delivery users reporting an increase in spending compared to pre-Covid levels (Figure 3). This highlights how the pandemic has catalyzed a significant shift in consumer behavior and preferences towards digital solutions in SEA which we believe will continue to aid growth in all key segments Grab operates in.

GROWING SOUTHEAST ASIAN ON-DEMAND FOOD DELIVERY MARKET

Growth potential in food delivery market: The on-demand food delivery market in SEA is experiencing rapid growth, presenting a wealth of opportunities for businesses in the region. According to a recent industry report, the GMV of the prepared meals market in SEA is projected to reach $24 billion in 2025 and $49 billion by 2030, with a compound annual growth rate (CAGR) of 13%, a significant increase from the $15 billion recorded in 2021 (Figure 4).

Competitive Market: The market is however highly competitive, with major players such as GrabFood (by Grab), Foodpanda (by Delivery Hero), and GoFood (by Gojek) accounting for around 85% of the total market share in 2021, followed by smaller operators such as Deliveroo in Singapore, Line Man in Thailand, and ShopeeFood in Indonesia, Malaysia, and Thailand. GrabFood is currently the market leader with 47.8% of the market share, followed by Foodpanda at 23.2%, GoFood at 13.8%, and the remaining operators at 15.2%.

OPPORTUNITIES IN UNDERDEVELOPED TRANSPORTATION INFRASTRUCTURE

Catalyzing on underdeveloped transportation infrastructure: The SEA region is characterized by a relatively underdeveloped transportation infrastructure, which presents a unique opportunity for the growth of ride-hailing services. Cities such as Bangkok, Jakarta, and Kuala Lumpur have longer commute times (Figure 5), and lower car ownership rates compared to Singapore. Additionally, the region's roads are dominated by two/three-wheel vehicles (Figure 6). These factors, coupled with the convenience and affordability offered by ride-hailing platforms, have made on-demand mobility an attractive alternative to traditional modes of transportation and car ownership.

Rejuvenation of tourism: Research has shown that the mobility market in SEA is estimated to reach $14 billion by 2025 (Figure 7), driven by the rising popularity of ride-hailing services. With the lifting of Covid-19 restrictions, the tourism industry is also expected to recover, providing further growth potential for the ride-hailing industry in the region.

In summary, the underdeveloped transportation infrastructure in SEA presents a significant opportunity for the ride-hailing industry. The convenience and affordability of ride-hailing services, combined with the expected recovery of the tourism industry are expected to drive market growth in the region. As a result, the ride-hailing sector presents a favorable opportunity for business expansion and investment in SEA.

BRIGHT OUTLOOK FOR DIGITAL FINANCIAL SERVICES

The SEA region is a growing market for digital financial services. The region's large, rapidly urbanizing population is increasingly digitally connected but still unbanked, providing a significant opportunity for financial technology companies to expand their services beyond just e-wallets and online payments, such as insurance and investment. This presents a huge revenue opportunity for the industry, with estimates putting the potential at $38 billion. Additionally, the expansion of digital banking services in the region can help address the funding gap faced by small and medium-sized enterprises (SMEs) due to a lack of formal credit history. This, along with the trend of digitalization and new opportunities in the region's digital financial services industry, are expected to drive significant growth in the industry.

Source: ASEAN Statistics; Moovit Insights; Temasek, Bain & Google E-conomy Report

Figure 7: Mobility market GMV in SEA

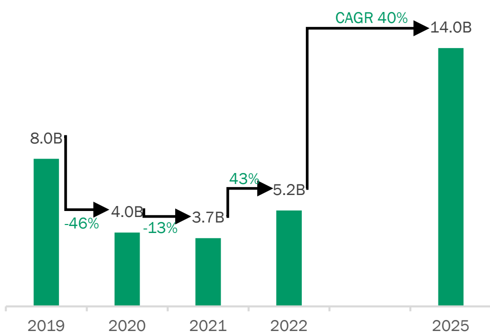


Figure 8: Supply of driver & merchants (Grab & Gojek)

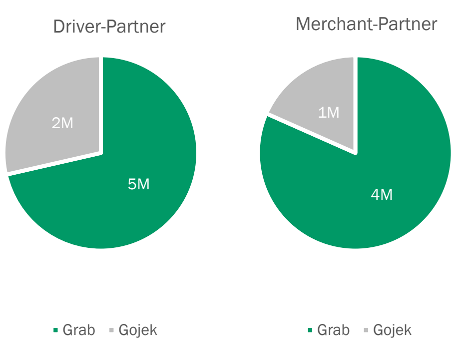


Figure 9: R&D expense vs incentive % of revenue

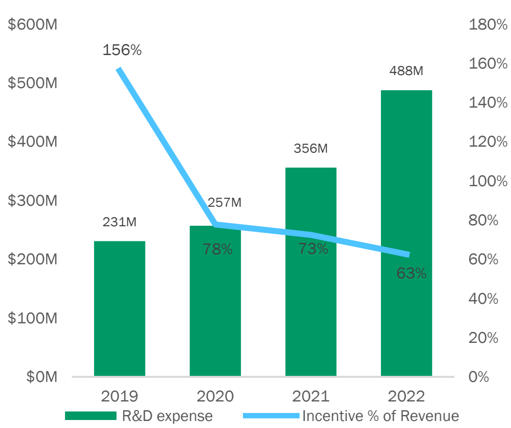
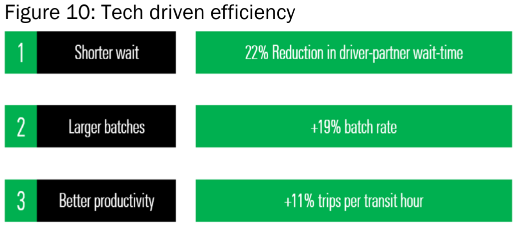


Figure 10: Tech driven efficiency



COMPETITIVE POSITIONING

LIONS SHARE ON DRIVER AND MERCHANT SUPPLY

Grab currently holds the lion share of both driver and merchant supply in SEA, with 5 million registered merchant-partners and 4 million registered driver-partners, compared to Gojek's 2 million drivers and 900 thousand merchants (Figure 8). This large network of partners gives Grab a competitive advantage over other competitors in the region, as it allows them to provide customers with cheaper and faster services. The bigger supply of drivers allows Grab to match customer demand more efficiently and effectively, resulting in lower prices and shorter wait times for customers. Additionally, the bigger number of merchant-partners on board allows Grab to offer a wider selection of choices, further enhancing the customer experience. Overall, Grab's dominance in driver and merchant supply is a key factor in the company's continued success and growth in the industry.

STRONG PARTNERSHIP WITH INDUSTRY LEADERS

Grab has established strong partnerships with big names across multiple sectors, such as Singtel (Asia's Leading telecom & digital services player), Emtek (Indonesia's leading media and technology group) and Kuok group (a conglomerate), which gives the company immediate access to a vast market reach and potential customers. Grab has a total of 120 million retail reach and 12 million MSME (Micro, Small & Medium enterprise) and 33 million MTU (Monthly transacting users) for their digital services, which is a significant advantage over its competitors. With these partnerships, Grab gains better recognition and branding compared to its competitors, making it a stronger player in the market. The company's strong ties with other industry leaders also position it well for future business ventures and to expand its services.

INVESTMENT SUMMARY

ROAD TO PROFITABILITY

Cost Optimization: Grab has been unprofitable ever since their initial public offering (IPO) but has shown tremendous improvement through the reduction of incentives as part of its efforts to improve its financial performance. Incentives have decreased from 77.8% of adjusted revenue in 2020 to an average of 62.6% in the first nine months of 2022, with the third quarter standing at 55% which we believe will decrease.

R&D and Technology: We attribute the decrease of incentive to heavy spending in R&D (Figure 9). Grab implemented machine learning algorithms and artificial intelligence for better product recommendations, better incentive targeting and improvement of driver-partner productivity. This has resulted in a 23% increase in conversion uplift, 11% increase in rides completed per hour and 31% in earnings per hour for driver partners (Figure 10). We believe that this led to higher customer loyalty and driver-partner retention due to more customized user experience for delivery and lesser waiting times for both consumers and drivers for ride-hailing segments. In return we can also expect the average spending per user to increase, thereby improving Grab's revenue (Figure 11).

Importantly, it has not hindered the company's growth in user base and customer retention. Even though the company has not yet reached profitability, the cutting of incentives has improved its chances of getting there and we believe the investment in technology will allow Grab to further reduce incentives.

HYPERLOCALIZATION

Customized service offering: Hyperlocalization is a key aspect of Grab's strategic approach and has been a driving force behind its success in the SEA region. By tailoring its service offerings to each market, such as GrabTukTuk in Thailand, GrabRemorque in Cambodia, GrabTrike in the Philippines, and GrabBike in Indonesia, which reflect popular local modes of transportation (Figure 12), Grab is able to effectively understand and solve local problems. This approach has enabled Grab to differentiate itself from competitors like Uber and has been a major contributor to its market dominance.

Source: Grab Investor Day 2022; Company Data; Team Consensus; Statista; Temasek, Bain & Google E-conomy Report

Figure 11: Average spending per user

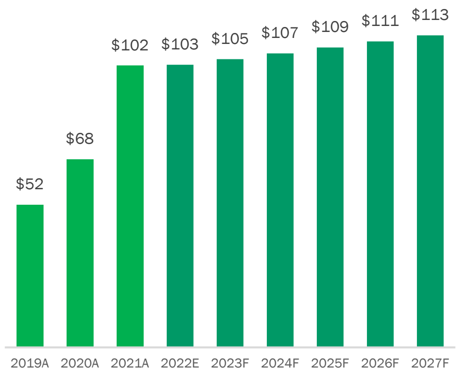
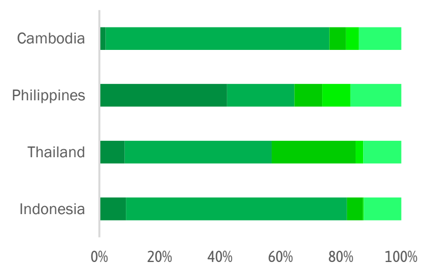


Figure 12: Popular mode of transport in (Indonesia, Philippines, Cambodia, Thailand)



	Indonesia	Thailand	Philippines	Cambodia
Public Transport	8.8%	8.4%	42.3%	2.1%
Private Motorcycle	73.2%	48.7%	22.3%	74.1%
Private automobile	5.3%	27.8%	9.2%	5.5%
Tuktuk/Tricycle	0.3%	2.5%	9.4%	4.3%
Others	12.4%	12.6%	16.8%	14.0%

Figure 13: GrabReward system for consumers

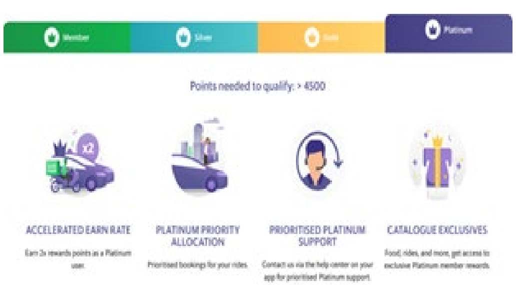
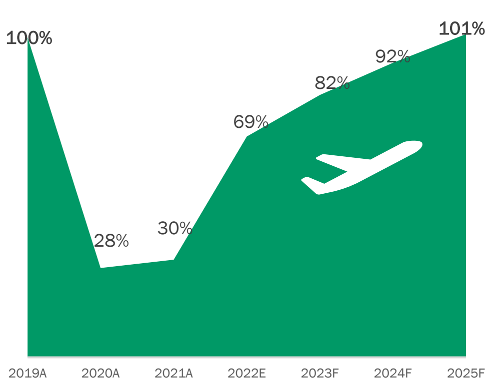


Figure 14: International traveler % of 2019 (Pre-Covid)



Source: International Air Transport Association (IATA); Company Website; Statista; Company Data; Team Concensus

Clear understanding of customer needs: Grab's exceptional understanding of its target market segments is another key factor in its success. The company has been able to successfully cater to the price-conscious mass market in SEA by pricing its services competitively and using a variety of pricing techniques, such as promo codes, frequent user reward programs, and greater benefits for higher loyal membership tiers from GrabRewards. These strategies have led to a positive feedback loop that improves consumer satisfaction, brand loyalty, and reduces the likelihood of users switching platforms (Figure 13).

Targeted marketing: Grab's advertisement campaigns, which feature personal stories of Singaporean Grab drivers and commuters, have been effective in establishing personal relevance among its users and appeal to consumers' emotions, needs and values. This approach has been more desirable to consumers than standardized campaigns. In conclusion, Grab's continued success is underpinned by its deep understanding of its consumers and delivering on their needs, as well as its ability to tailor its services to the local market and adapt to their needs which translate to higher customer and partner loyalty leading to the increase in average spending per users.

DIVERSIFIED REVENUE AND NEW OPPORTUNITIES

Robust growth for Delivery segment: Grab's delivery segment has seen significant growth in recent years. The company's food delivery business alone brought in over $1.5 billion in 2021, a significant increase from $322 million in 2019. Furthermore, with the growing adoption of online delivery by consumers and merchants, the total addressable market for grocery delivery is larger than food delivery, with a GMV estimated to be $31 billion by 2025 despite lower penetration rates. With partnerships from local grocers such as Indomaret (Indonesia), Big C (Thailand), S&R (Philippines) and the recently acquired Jaya Grocer (Malaysia), Grab is well-positioned to take advantage of this growing business segment.

Enterprise and new initiatives: Grab are also expanding into new opportunities such as GrabAds and GrabMaps. These businesses are still in their early stages, but with the digital mapping industry forecasted to grow at a 14.2% CAGR and the advertising market forecasted at 15.4% CAGR, respectively, we expect these new services to bring in better margins and more robust revenue growth for Grab's enterprise and new initiatives segment. Grab also offers enterprise solutions (GrabforBusiness), sold through subscription and annual fees, to help companies manage their transportation needs. These solutions include multiple user account management, spending limits and expense reports which allows companies to provide transportation services for their employees, clients, or partners.

Big opportunity in digital banking sector: Grab's expansion through GXS Bank aims to address the funding gap problems that many SMEs in SEA face due to a lack of formal credit history. In addition, with access to driver-partner and consumer cash flow data, Grab can better assess the creditworthiness of individual users, thereby lowering the risk of defaults on loans. This can be a key competitive advantage for Grab in the digital banking sector. Overall, we believe that the diversified revenue and new opportunities will reduce business risk and serve as the building blocks for Grabs future financial stability.

FINANCIAL ANALYSIS

DIGITALIZATION AND REOPENING FUEL REVENUE GROWTH

Based on our valuation, we forecasted a compound annual growth rate (CAGR) for the revenue of 21.8% over the next 10 years which anticipates Grab’s monthly active user base to reach 14.5% of SEA population by 2032 and a 2% increase in average spending per user yearly throughout our forecast. These assumptions are backed by the following factors:

Mobility: Grab’s mobility segment experienced a decline of 54% in MTU due to the COVID-19 pandemic. Our analysis revealed that travelers are the main contributor of the segment’s revenue with airport rides taking 8% of the segment’s GMV before COVID. As the border opens, Grab has reported a resurgence of airport ride demand which increased the proportion to segment’s GMV to 6% as of May 2022 from 4% in March 2022. We expect the global recovery in airline industry to serve as catalyst for growth in the mobility segment, which is forecasted to surpass pre-COVID levels by 2025 and increasing the number of active users. (Figure 14).

Delivery: Our industry analysis has previously mentioned that the on-demand food delivery market will be experiencing significant growth, which we anticipate will directly benefit Grab's Delivery GMV. The food delivery market has benefited much from the pandemic, and we recognized that the growth seen during these periods is a one-time event. However, we can still expect a robust growth in Grab's delivery segment with proportion to the industry growth, as evidenced by the 22% Year-Over-Year growth in Delivery' GMV in the first nine months of 2022.

Financial Services: As the digital economy continues to grow, with projections to reach $1 trillion GMV by 2030 (Figure 15), we expect to see an increase in the number of transacting users and the transaction size within Grab's financial services segment. Furthermore, as Grab expands its digital banking offerings, we anticipate the company to increase the payment proportion made within Grab app as compared to outside while helping to drive higher MTU growth.

Average spending per user: According to Investment Day in 2022, the percentage of users who use 2 or more services has increased from 43% in 2019 to 62%. Additionally, average spending per user has doubled from $52 to $103. We anticipate that Grab will continue this trend and expect an annual growth of 2% in line with the regional GDP growth and believe this projection to be conservative as higher GDP growth is expected in SEA (Figure 16).

COST OPTIMIZATION LEADS TO MARGIN EXPANSION

Incentives: The delivery segment of Grab has the highest ratio of incentives (74%) to adjusted revenue (revenue before incentives) compared to other segments as of the first nine months of 2022. This is due to their rapid expansion in market share of the delivery business and the company's efforts to establish a solid customer base. We anticipate Grab will decrease incentives for this segment in the long term to increase revenue and profitability, targeting a ratio similar to the stable 30% ratio in the mobility segment.

Costs: Operating costs have remained relatively stable over the past three years, with staff costs being the primary contributor to the company's increasing expenses (Figure 17) despite significant growth in revenue during the period. This suggests Grab's potential to grow its business without increasing its expenses proportionately to revenue growth. To establish a target expense ratio, we used peer companies as a benchmark for expense ratios to revenue (Figure 18) and believe that there is potential for Grab to improve its cost of revenue and general expenses.

Operational Efficiency: Grab has also made improvements in operating efficiency as seen in the decrease of bad debt from $74M in 2020 to $66M in 2021. We expect this trend will continue moving forward, along with the enhancement in the cash conversion cycle which has improved from -40 days to -56 days during the same period.

Margin: Grab reported an operating profit margin (OPM) of -230% and net profit margin (NPM) of -526% in 2020 compared to Gojek's -306% and -382% respectively in the same period. Since then, they have made significant strides in improving its profitability and is now expected to achieve an OPM of -121% and NPM of -131% in 2022, leaving behind its largest regional competitor, Gojek where they are expecting -233% and -217% respectively. Furthermore, our model projects a breakeven date of 2023 for Grab's Gross Profit Margin on top of OPM and NPM breakeven by 2027 (Figure 19). However, we disagree with management's expectation of achieving breakeven on adjusted EBITDA by 2024 with our valuation showing this will be achieved in 2025 instead (Figure 20).

LEVERAGED RATIO AND LIQUIDITY

Leveraged ratio: Grab has significantly improved its financial position post-IPO. The company was able to reduce its debt-to-asset ratio from 203% to 19.5% with $5.7B in cash equivalents and expect no issue with the repayment on their $1.1Billion term loan set to mature in 2026.

Figure 15: Forecasted Digital Economy GMV

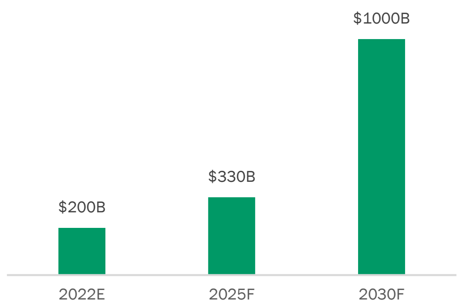


Figure 16: ASEAN-5 GDP Growth rate

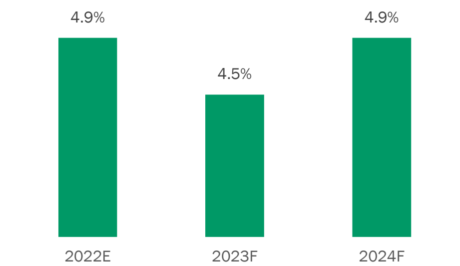


Figure 17: Expense by nature

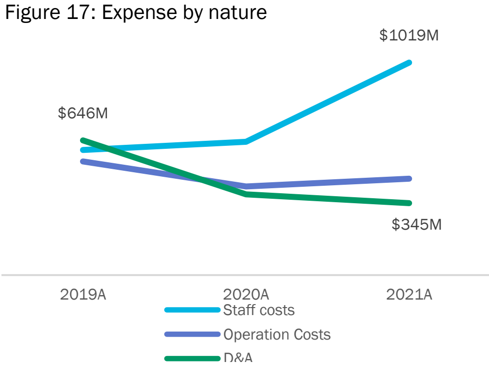


Figure 18: Expense target ratio

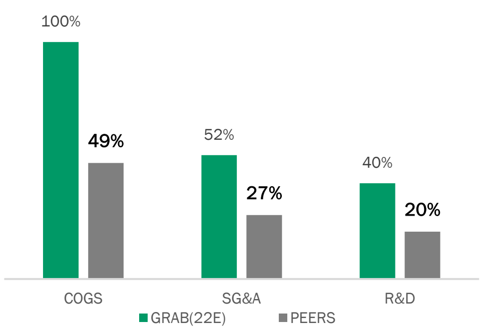
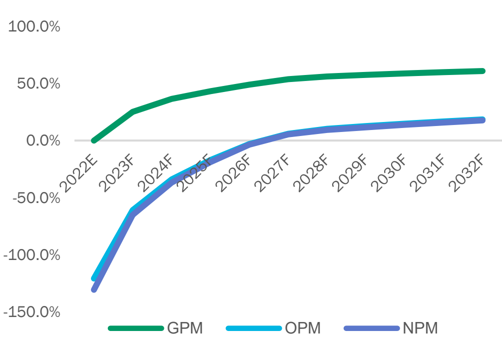
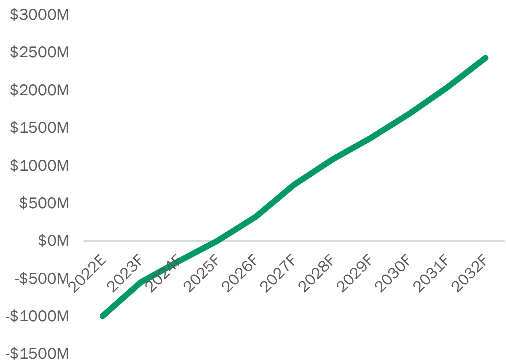


Figure 19: Forecasted GPM, OPM, NPM



Source: Team Consensus; Company Data; OECD Economic Outlook; Temasek, Bain & Google E-conomy Report

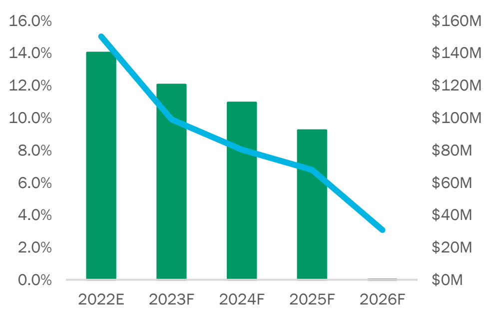
Figure 20:Forecasted Adjusted EBITDA



Assuming no refinancing, this will bring Grab's debt to asset ratio to 0% in 2026 which alleviates the burden of high interest payments, currently at 9.3% (Figure 21).

Liquidity: We used cash burn rate as a metric to compare Grab to its peer Gojek. Our analysis has shown that Grab has the upper hand in this regard with 3.7 years compared to Gojek's 0.9 years. Furthermore, we have observed that Grab has a higher credit rating than Gojek, with a rating of B2, while Gojek's credit rating has recently dropped from B2 to B3 in October 2022. However, we have also noted a significant increase in Grab's other investments, specifically in time deposits with maturity of more than 3 months. This could potentially be a factor that affects Grab's liquidity if the company continues to invest at this pace. We also observed that Grab's Altman Z-Score has notably improved, from -4.8 in 2020 to -0.87 in 2022. We anticipate this trend to continue and for Grab to have better solvency in the future (Figure 22). Overall, our analysis suggests that Grab has a strong liquidity position and a low leveraged ratio, which should provide a stable financial foundation for the company in the future.

Figure 21:Debt ratio with interest expense



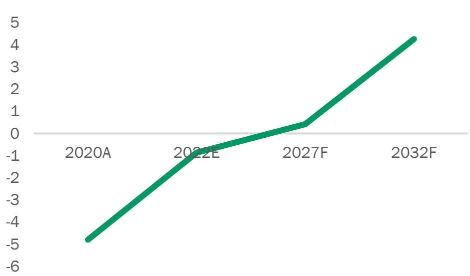
FREE CASH FLOW

Based on our model, Grab will achieve a positive cash flow by 2026 through the expansion of margins (Figure 23). In traditional business, positive free cash flow often implies a reluctance to invest in capital expenditures (CAPEX), which can impede future growth. However, Grab's business allows for scalability without significant investments in CAPEX. In 2021, Grab's CAPEX amounted to only 3% of its revenue and we believe the main drivers for growth should be R&D expense instead of CAPEX for Grab. While forecasted R&D expense will still be increasing, we expect a lower percentage as proportion to revenue and believe that believe that reaching free cash flow will not affect Grab's growth trajectory.

VALUATION

We reiterate a BUY recommendation for Grab with a one-year target price of $3.78, offering an 20.1% upside from its closing price of $3.15 as of December 30th, 2022. Our recommendation was derived from a combination of Free Cash Flow to Firm (FCFF) DCF model and Relative Valuation with a weightage of 70% and 30% respectively. To further support our recommendations, we then run our DCF model through scenario and sensitivity analysis to assess the input variability impact on the implied price.

Figure 22: Altman Zero Score (Grab)



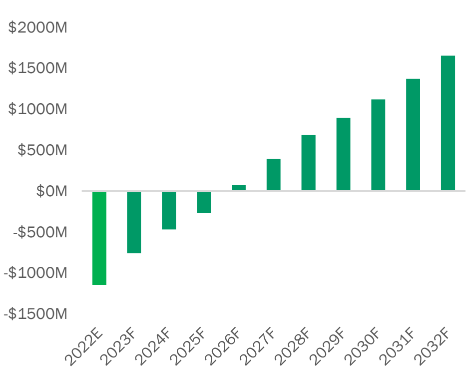
DISCOUNTED CASH FLOW

In our DCF valuation, we have employed the 10-Year FCFF methodology to determine the intrinsic value of the company (Appendix A-5) as we believe that a shorter time horizon would not be sufficient to capture the potential of the company's future cash flows. Based on our valuation, Grab will breakeven on its FCFF by 2026, arriving at an implied share price of $4.03.

TERMINAL GROWTH

Our assumption for the terminal growth rate was determined by calculating the 10 years historical weighted average of GDP growth based on Grab's geographical revenue composition ending it up at 3.5% (Appendix A-9).

Figure 23: Forecasted FCFF



WACC

Cost of Equity: To match a time horizon with DCF method, we decided on the 10 Years US treasury yield as a risk-free rate and not to calculate the risk-free rate by segment as additional country risk premium and specific risk premium has already been accounted for. The same methodology is applied on equity risk premium where we used the historical US equity risk premiums with 20-years' time horizon (Figure 24). We then used a bottom-up approach to derive a re-levered beta of 1.37 (Appendix A-8) which resulted in a cost of equity of 13.82%.

Cost of Debt: We believe that calculating an effective interest rate would not be suitable for Grab given how their loans are based on a floating rate basis. As such, we incorporated a

Source: Team Consensus, Company Data

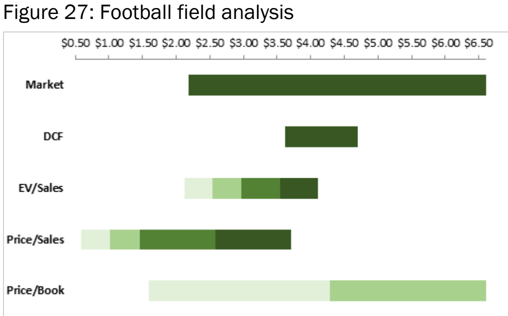
Figure 24:WACC Calculation

WACC Calculation	
Inputs	**Value**
Risk Free Rate	3.88%
Beta	1.37
Equity Risk Premium	4.63%
Country Risk Premium	1.42%
Specific Risk Premium	2.17%
Cost of equity	**13.82%**
Default spread	5.26%
Country spread	1.01%
Tax rate	17.00%
After-Tax Cost of Debt	**8.42%**
Debt/Value	24.8%
Equity/Value	75.2%
WACC	**12.48%**

Figure 26: Sensitivity Analysis

TGR (%) \ WACC (%)	11.5%	12.0%	12.5%	13.0%	13.5%
2.5%	4.17	4.00	3.86	3.73	3.62
3.0%	4.28	4.10	3.94	3.81	3.69
3.5%	4.40	4.20	4.03	3.89	3.75
4.0%	4.54	4.32	4.14	3.97	3.83
4.5%	4.70	4.46	4.25	4.07	3.91

Figure 27: Football field analysis



default spread and country spread on the risk-free rate in addition to tax shield, bringing the cost of debt to 8.42%.

WACC: With the cost of debt and cost of equity calculated, a weighted average cost of capital (WACC) of 12.48% is derived, which we believe is appropriate as it accounts for the high level of volatility and rapid growth of Grab's business.

SENSITIVITY ANALYSIS

Our sensitivity analysis on the DCF valuation showed that by varying WACC (±0.5%) and terminal growth rate (±0.5%), it resulted in a potential price range between $3.62 and $4.70 (Figure 26). Every figure in the sensitivity table is above the current share price of $3.15, further supporting our BUY recommendation. We believe that our sensitivity analysis provides a reliable estimate as each figure in the sensitivity table (Figure 27) aligns with figures obtained through various valuation methodologies.

SCENARIO ANALYSIS

To conduct Bull and Bear FCFF DCF scenario analysis (Figure 25), we varied our assumptions in our investment thesis (Appendix A-14).

Figure 25: Scenario Analysis

Scenarios	Bear Case	Base	Bull Case
Digitalization will allow higher penetration rate	Digital economy grows, but Grab loses market portion.	Grab successfully maintain its market portion, benefiting from the growth of digital economy	Grab wins competitors gaining new customers.
Robust GDP growth will lead to higher spending	Economic recession will reduce people's consumption	Moderate rise on people's spending as GDP grows.	Significant rise on people's spending as GDP highly grows.
Heavy R&D expenditure help Grab to reduce its incentives.	Competitive environment can delay Grab to reduce incentives	Grab successfully cut down incentives	Favorable economy can help Grab to reduce more incentives without any disadvantage
Share Price (USD)	$2.02	$3.78	$6.06
% from current share price	-35.8%	+20.1%	+92.3%

SUM OF THE PARTS (RELATIVE VALUATION)

We divided the business segments of Grab into four categories for peer valuation comparisons: Mobility, Deliveries, Financial services, and Enterprise & new initiatives. Enterprise Value to Sales ratio (EV/SALES) was used and multiplied by the forecasted 2023 revenue to calculate the company's EV (Figure 28). To ensure the accuracy of the valuation, we avoided using forward multiples and other multiples such as EV/GMV was not considered as they are not widely adopted by companies. Despite Grab having positive EBITDA in its mobility segment, we decided not to use the EV/EBITDA multiple as it would not be appropriate due to Grab's lower depreciation compared to its mobility peers such as ComfortDelGro.

Figure 28: Relative Valuation

Segment	Methodology	EV/SALES (x)	2023F Revenue	Valuation	Value Per Share	% of SOTP
Mobility	EV/SALES	5.87x	856	5,021	$1.30	50.3%
Deliveries	EV/SALES	3.30x	755	2,493	$0.65	28.8%
Financial Servic	EV/SALES	2.30x	84	193	$0.05	18.4%
Enterprise & ne	EV/SALES	2.02x	82	166	$0.04	2.5%
Enterprise Value				6,658	$2.04	
(+) Net Cash/(Debt)				4,503	$1.17	
(-) Non Controlling Interest (3Q 2022)				45	$0.01	
Total Equity Value				11,116	$3.20	
# of Shares Outstanding (Diluted)				3,851		

Using the EV/SALES multiples from the peer group, we derived an implied share price of $3.20 (Appendix A-12).

Source: Team Consensus; Refinitiv; Company Data

Figure 29: Risk Matrix

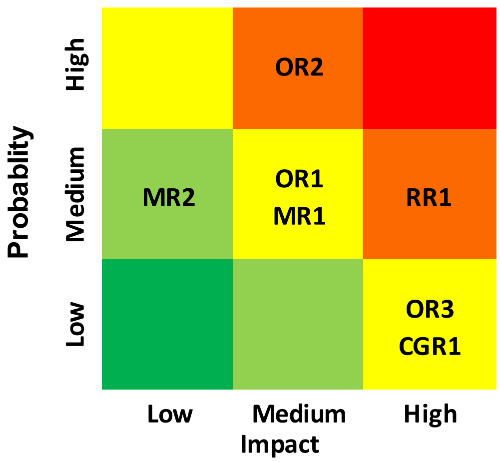


Figure 30: User retention rate for Grab

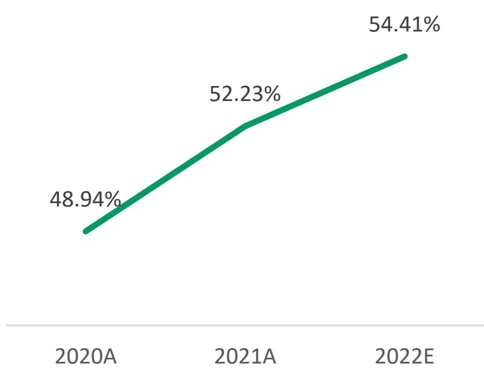
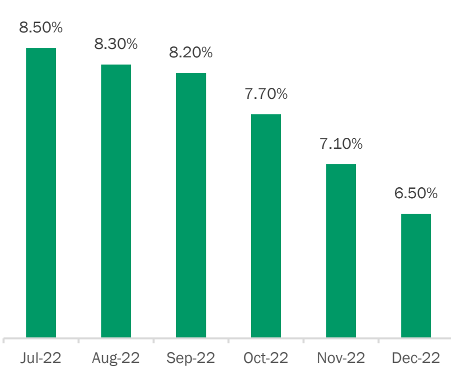


Figure 31: Digital banks in Singapore

Figure 32:US CPI Index



Source: Trading Economics; GXSBank Website; Trustbank Website; ANEXT Bank Website; SeaMoney Website; Team Concensus

INVESTMENT RISKS

OPERATIONAL RISKS

OR1: Supply constraint on drivers (Impact: Medium, Probability: Medium). As of June 2022, the active driver base sharply decreased by 23% from December 2019. This supply constraint on drivers can be an obstacle for Grab to scale up its revenue, as a lack of available drivers can lead to longer wait times, which can result in consumers choosing alternative platforms. **Mitigation:** Grab's investment in R&D led to the development of an efficient matching system, which improved ride pairing and reduced waiting time for drivers. This resulted in increased productivity and profitability for drivers, resulting in better retention rate. We believe this mitigates the decrease in active drivers and even attracts drivers from competing platforms.

OR2: Price-sensitive users might delay breakeven point (Impact: Medium, Probability: High). A survey held by Wirecard in 2018 showed 67% of Singaporeans responding that price is the most critical factor when making retail purchases. Another survey held by Nielsen's Global Survey in 2013 showed that Malaysian and Singaporeans are the most price-elastic. In addition, Grab's users experience low switching costs when they move into other platforms. We believe that there is an inherent risk for Grab when its competitors increase incentives, as we expect Grab to respond similarly, which may delay its breakeven point. **Mitigation:** Although Grab has been reducing incentives, our research shows that the retention rate of its users has been improving (Figure 30). Grab is also taking efforts to further improve retention, such as subscription plan (Grab Unlimited) and reward points program. These efforts can discourage users from switching to other platforms.

OR3: Failure of GXS Bank (Impact: High, Probability: Low). The digital banking industry is highly competitive and GXS bank faces strong competition from other players in the market (Figure 31). This competition can make it challenging for GXS bank to achieve its goals and maintain its market position. Additionally, in November 2022, Reuban Lai, the Executive Director of GXS Bank, announced his decision to step down from his role on the board of director in Singapore, while remaining his role in Malaysia. This change of leadership may indicate potential challenges for the bank in the future and could potentially lead to underperformance or even failure in the worst-case scenario. **Mitigation:** Singtel holds a 40% stake in GXS bank. Singtel's ability to invest sufficient capital in GXS bank is crucial for the bank's growth and success. We expect that Singtel's involvement and investment in GXS bank will support the bank's growth and competitiveness in the digital banking industry.

MARKET RISKS

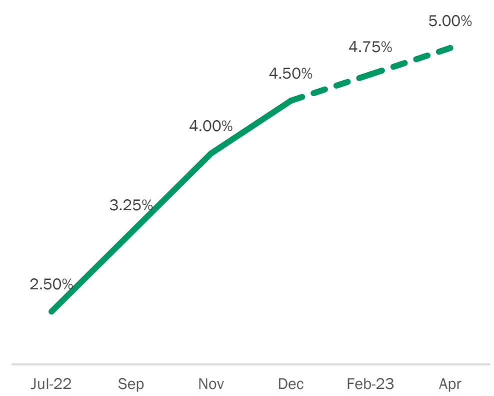
MR1: FED expected to raise interest rate (Impact: Medium, Probability: High). As of December 2022, Consumer Price Index (CPI) in US has not yet reached the target inflation rate of 2% (Figure 32). As a result, it is expected that the Federal Reserve will continue to raise interest rates, with Goldman Sachs predicting a peak of 5-5.25% in 2023 (Figure 33). While the economy in SEA has shown significant improvement and growth, this increase in interest rates could have a negative impact on the region's economy. **Mitigation:** In December 2022, management implemented cost-cutting measures to mitigate the potential negative effects of an uncertain macroeconomic environment. These measures included hiring freeze, salary freezes for senior managers and reduced spending on travel and expenses budgets.

MR2 Foreign exchange effect (Impact: Low, Probability: Medium). Grab is exposed to foreign exchange risk as its transactions are made across various currencies, Singapore Dollars, Malaysian Ringgit, Indonesian Rupiah, Thai Baht, Vietnamese Dong, and Philippine Pesos. In the first nine months of 2022, Grab reported a foreign exchange loss of $106M, which represents 11.3% of its revenue. **Mitigation:** We believe the strong dollar in 2022 was an exceptional case, as the peak of 114 in the dollar index was the highest in 20 years. As of December 30th, dollar index dropped by 10% from the peak, which indicates the market anxiety has been alleviated. In addition, Grab can enter financial derivatives to hedge against foreign currency risk.

CORPORTAE RISK

CGR1: Dilution risk to equity value (Impact: Low, Probability: High). According to Grab's plan for 2021, a maximum of 7% of the total shares outstanding (on a fully diluted basis) will be newly issued. This plan allows for the award of share compensation and restricted share units ("RSU") to attract and retain talent (Appendix C-1, C-2). However, this may come at a cost to existing shareholders as it increases compensation expenses and could potentially dilute their holdings. Additionally, Grab can issue new rights without obtaining permission from existing shareholders, which may be a source of concern (Figure 34). **Mitigation:** Grab can mitigate dilution risk by extending exercise dates for RSUs or increasing exercise prices for stock options. This can incentivize employees and directors to work towards achieving a higher performance target and contribute to the company's success.

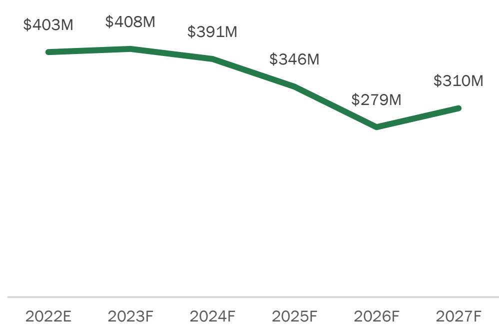
Figure 33: FED interest rate



REGULATORY RISK

RR1: Potential changes to gig protection regulation (Impact: High, Probability: Medium). In November 2022, Singapore government legislated a law that provides better job protections for gig workers, set to be implemented in 2024. This includes medical coverage for injuries that occur on the job and mandatory contributions to the Central Provident Fund (CPF) for workers under the age of 30. Yet, governments in Philippines and Malaysia have declared Grab's partners as non-employees, we expect there may be political and social pressure to provide employee benefits for gig workers in these countries. Despite this, we do not expect Southeast Asian governments to prohibit the gig economy due to its substantial impact in these countries. **Mitigation:** Grab can implement mandatory retirement and insurance benefits in advance. This would help to reduce the shock of the new regulations and it will be a proactive approach to meeting the regulations.

Figure 34: Grab's stock compensation expense



ENVIRONMENTAL, SOCIAL, AND GOVERNANCE

ESG Leadership: Grabs is a leader in sustainability, evidenced by its AA ESG rating from MSCI and being ranked among Forbes' top 100 female-friendly companies. Its strong ESG profile makes it an attractive investment opportunity, especially for ESG-focused investors (Figure 35)

ESG Mission: Grabs is dedicated to driving SEA's economic empowerment and positive social impact through inclusive gig work, as demonstrated by its clear ESG targets, sustainability committee, and progress reports. This commitment aligns with global ESG initiatives and is reflected in their annual ESG report.

Material ESG Risks: Grabs' material ESG risks include: 1) energy and waste management, 2) diversity and inclusion, 3) data security and privacy, 4) accident & safety management. These are considered key areas of focus as they have the potential to impact on the company's reputation, financial performance, and long-term value for stakeholders.

Figure 35: MSCI Rating (Grab & Peers)

	MSCI ESG Rating	ESG Targets & Goals	ESG Report	Sustainability Committee
Grab	AA	Yes	Yes	Yes
Deliveroo	Unrated	No	No	No
GoJek	Unrated	Yes	Yes	Yes
Uber	-	Yes	Yes	No

ENVIRONMENT

Carbon neutrality: Grab is committed to carbon neutrality by 2040 through transitioning to low-emission vehicles, encouraging drivers to do the same, using renewable energy, and investing in carbon removal programs to offset residual emissions. This demonstrates a strong commitment to reducing its carbon footprint and addressing climate change.

Decarbonization roadmap: As of December 2022, Grab has implemented initiatives to address climate change, such as allowing customers to offset carbon emissions, using 100% renewable energy for corporate offices, achieving 42.8% of total energy consumption from renewable sources and using low-emission vehicles. These actions align with Grab's commitment to a greener future and a 20-year decarbonization roadmap, and the company will face minimal impact from carbon tax.

Waste Management: Grab is reducing food packaging waste by decreasing single-use items and replacing them with eco-friendly alternatives, sourcing bulk pricing for merchants and making the default cutlery option "opt-out" in major markets, demonstrating a commitment to sustainability.

Source: Team Consensus; Company Data; Federal Open Market Committee; Goldman Sachs

Figure 36: of Persons with Disabilities reported that they maintained or increased their earnings by working Grab

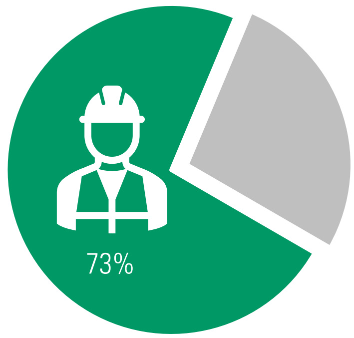


Figure 37: % of PWDs said they felt fulfilled and satisfied with life by working with Grab

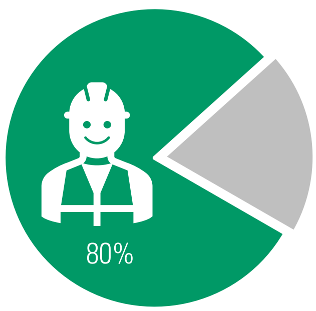


Figure 38: Voting rights of major shareholders (Feb.2022)

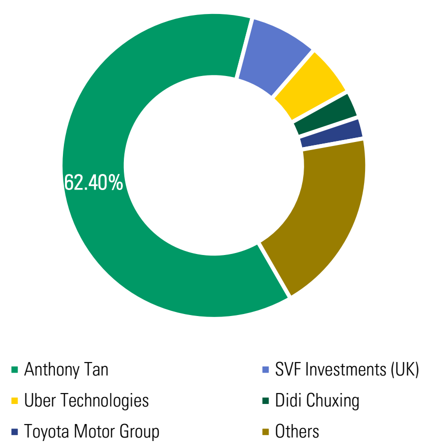
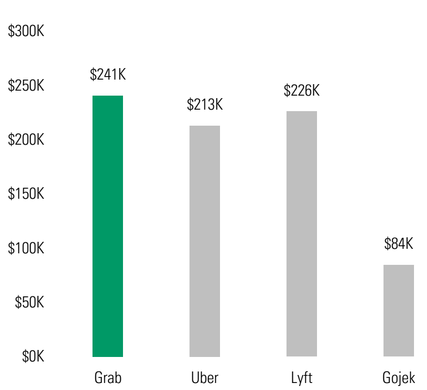


Figure 39: Median value of executive salaries



Climate Neutral Now Initiative: Grab joined the Climate Neutral Now Initiative by UN Climate Change in 2015, demonstrating a true commitment to delivering on its ESG commitments, rather than just virtue signaling. The CEO believes that the company can foster climate security, economic prosperity, and social stability in SEA for generations to come.

SOCIAL

Persons With Disabilities: Grabs' social target is to double the number of marginalized individuals earning income on its platform, including Persons With Disabilities (PWDs), by 2025 (Figure 36,37). This will be achieved through economic, social, and financial empowerment, to enable greater economic participation in the digital economy, contribute back to society in meaningful ways, and widen access to financial services for the unbanked, underbanked, and underserved in SEA.

Economic empowerment: Grab has expanded the gig economy across SEA, providing new opportunities for those who were previously unemployed or underemployed. This includes 46% of driver-partners who did not have an income before joining Grab and 1,100 deaf and physically impaired partners. The gig economy offers a flexible and efficient way to earn money, particularly for marginalized populations facing traditional employment barriers. The low barrier to entry as a Grab driver or delivery partner is a significant socioeconomic benefit.

Social empowerment: Grab partnered with Emtek Group to host an accelerator program targeting small businesses in less developed cities in Indonesia. The program aims to increase digitalization for small businesses and entrepreneurs in the country. In 2020, 100 small businesses from five cities were selected for the program.

Financial empowerment: In 2021, over 60% of Grab's working capital loans were issued to small merchants through Grab Financial Group, which helped many small businesses to expand during the pandemic

GOVERNANCE

Diversity And Inclusion: Employees are key contributors to value creation in the industry. Grab targets to have 40% women in leadership positions by 2030, up from 34% in 2022. Grab also has high gender wage parity index of 0.98; A female employee earned 98 cents to a dollar paid to a male employee for performing a similar role at Grab.

Data Security and Privacy: Grab has invested in improving their IT infrastructure to attract and retain customers, impacting revenues and opportunities in new markets. They have also implemented strategies, policies, and practices to ensure security of customer data, including the "Privacy by Design" framework for data privacy.

Accident & Safety Management: In 2021, overall road accident rate for mobility and deliveries segments saw a 28% improvement compared to 2020. Grab takes a number of proactive safety measures, such as designing visible reflective prints and tags, providing defensive driving training and providing a driving safety report in-app (designed for two-wheel driving behaviour).

Dual-Class Shares: Grab has a dual-class shares (DCS) structure, where each Class A share is entitled to 1 vote and each Class B share is entitled to 45 votes. As of February 28, 2022, Grab CEO Anthony Tan controlled about 62.4% of the total voting rights, despite only owning 3.6% of outstanding shares (Figure 38). **Implication:** This structure poses a potential governance risk, as the CEO's large control over decision-making could lead to abuse of power and the public shareholders have little influence over the company's direction. This is evidenced by the fact that Grab pays a higher salary to its executives compared to its industry peers (Figure 39). The CFA Institute believes that the "one share, one-vote" structure is the fairest and most optimal market practice, as DCS structures could lead to erosion of corporate governance standards. **Voting premium:** We expect that as Grab matures over time, the voting premium will rise, and rise more for companies where investors trust management the least. Hence investors' trust in Grab's management is important.

Source: Company Data

Appendix

A-1 Income Statement

		Historical							Forecast					
FY-DEC	FY	FY	FY	FY	FY	FY	FY	FY	FY	FY	FY	FY	FY	FY
(Unit: $ In millions)	2019	2020	2021	2022E	2023F	2024F	2025F	2026F	2027F	2028F	2029F	2030F	2031F	2032F
Adjusted Revenue	**1,504**	**1,708**	**2,456**	**3,286**	**4,137**	**5,036**	**5,985**	**6,987**	**8,044**	**9,159**	**10,334**	**11,571**	**12,873**	**14,244**
(-) Incentive	**-2,349**	**-1,239**	**-1,781**	**-2,079**	**-2,275**	**-2,568**	**-2,933**	**-3,284**	**-3,620**	**-3,938**	**-4,340**	**-4,744**	**-5,149**	**-5,555**
Revenue	**-845**	**469**	**675**	**1,208**	**1,862**	**2,467**	**3,052**	**3,703**	**4,424**	**5,221**	**5,993**	**6,827**	**7,724**	**8,689**
Total Cost of Revenue	**-1,320**	**-963**	**-1,070**	**-1,208**	**-1,379**	**-1,545**	**-1,704**	**-1,854**	**-2,006**	**-2,247**	**-2,502**	**-2,771**	**-3,054**	**-3,354**
Other Income	14	33	12	0	0	0	0	0	0	0	0	0	0	0
Gross Profit	**-2,151**	**-461**	**-383**	**-1**	**482**	**922**	**1,349**	**1,849**	**2,418**	**2,974**	**3,492**	**4,056**	**4,670**	**5,335**
GPM (%)		*-98.4%*	*-56.7%*	*-0.1%*	*25.9%*	*37.4%*	*44.2%*	*49.9%*	*54.7%*	*57.0%*	*58.3%*	*59.4%*	*60.5%*	*61.4%*
Research & Development Expense	231	257	356	488	538	604	656	725	801	912	1,029	1,152	1,281	1,418
Selling & Marketing Expense	238	151	241	264	282	295	302	299	289	327	368	411	457	505
General & Administrative Expense	304	326	545	632	688	728	751	754	858	968	1,085	1,208	1,339	1,476
Net impairment losses on financial assets	56	63	19	57	71	85	102	119	137	156	176	197	219	243
Other Expenses	30	40	11	15	10	10	10	9	9	9	9	9	9	9
Total Operating Expenses	**859**	**837**	**1,172**	**1,456**	**1,589**	**1,723**	**1,821**	**1,907**	**2,093**	**2,372**	**2,666**	**2,978**	**3,306**	**3,651**
Operating Profit	**-3,010**	**-1,298**	**-1,555**	**-1,457**	**-1,107**	**-800**	**-472**	**-58**	**325**	**602**	**825**	**1,079**	**1,364**	**1,684**
OPM (%)	*-200.1%*	*-76.0%*	*-63.3%*	*-120.6%*	*-59.5%*	*-32.4%*	*-15.5%*	*-1.6%*	*7.4%*	*11.5%*	*13.8%*	*15.8%*	*17.7%*	*19.4%*
Finance Income	85	53	65	39	23	18	19	17	38	71	114	167	231	309
Finance Costs	-1,056	-1,490	-1,701	-150	-99	-81	-69	-31	0	0	0	0	0	0
Share Listing and Associated Expenses	0	0	-353	0	0	0	0	0	0	0	0	0	0	0
Net Finance Costs	**-971**	**-1,437**	**-1,989**	**-111**	**-77**	**-63**	**-49**	**-14**	**38**	**71**	**114**	**167**	**231**	**309**
Share of Loss of Equity-Accounted Inventories	0	-8	-8	0	0	0	0	0	0	0	0	0	0	0
Profit before Income Tax	**-3,981**	**-2,743**	**-3,552**	**-1,568**	**-1,184**	**-863**	**-522**	**-72**	**364**	**673**	**939**	**1,245**	**1,595**	**1,993**
Income Tax Expense	7	2	3	8	0	0	0	0	62	114	160	212	271	339
Net Income Including Non-Controlling Interest	**-3,988**	**-2,745**	**-3,555**	**-1,576**	**-1,184**	**-863**	**-522**	**-72**	**302**	**559**	**780**	**1,033**	**1,324**	**1,654**
NPM (%)	*-265.2%*	*-160.7%*	*-144.7%*	*-130.5%*	*-63.6%*	*-35.0%*	*-17.1%*	*-1.9%*	*6.8%*	*10.7%*	*13.0%*	*15.1%*	*17.1%*	*19.0%*

(A-1: Source: Team Consensus, Bloomberg)

A-2 Balance Sheet

		Historical							Forecast					
FY-DEC	FY	FY	FY	FY	FY	FY	FY	FY	FY	FY	FY	FY	FY	FY
(Unit: $ In millions)	2019	2020	2021	2022E	2023F	2024F	2025F	2026F	2027F	2028F	2029F	2030F	2031F	2032F
Assets														
Cash and cash equivalents	1,511	2,173	4,991	1,556	912	733	778	670	1,534	2,857	4,552	6,661	9,239	12,350
Inventories	5	3	4	0	0	0	0	0	0	0	0	0	0	0
Prepayments and other assets	0	0	185	232	292	364	426	499	576	654	738	827	920	1,018
Other investments	1,243	1,298	3,240	4,114	3,614	3,114	2,614	2,114	2,114	2,114	2,114	2,114	2,114	2,114
Trade and other receivables	381	281	255	391	492	592	709	827	950	1,084	1,222	1,368	1,523	1,685
Total Current Assets	**3,140**	**3,755**	**8,675**	**6,293**	**5,311**	**4,802**	**4,527**	**4,110**	**5,175**	**6,709**	**8,627**	**10,971**	**13,796**	**17,167**
Other investments	132	377	1,241	1,522	1,522	1,522	1,522	1,522	1,522	1,522	1,522	1,522	1,522	1,522
Property, plant and equipment	534	384	441	421	428	457	501	560	629	709	797	893	998	1,110
Intangible assets and goodwill	1,180	913	675	846	851	858	866	874	884	894	905	916	928	940
Associates and joint venture	33	9	14	14	14	14	14	14	14	14	14	14	14	14
Deferred tax assets	0	0	5	5	5	5	5	5	5	5	5	5	5	5
Prepayments and other assets	5	4	127	127	127	127	127	127	127	127	127	127	127	127
Total Non-Current Assets	**1,884**	**1,687**	**2,503**	**2,934**	**2,947**	**2,982**	**3,035**	**3,102**	**3,181**	**3,270**	**3,369**	**3,477**	**3,593**	**3,718**
Total assets	**5,024**	**5,442**	**11,178**	**9,228**	**8,258**	**7,785**	**7,562**	**7,212**	**8,356**	**9,979**	**11,996**	**14,448**	**17,389**	**20,884**
	171.2%	202.5%	19.5%	14.0%	12.0%	10.9%	9.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Liabilities														
Current tax liabilities	0	0	3	3	3	3	3	3	3	3	3	3	3	3
Loans and borrowings	161	140	144	47	18	0	0	0	0	0	0	0	0	0
Provisions	3	35	35	35	35	35	35	35	35	35	35	35	35	35
Trade and other payables	619	661	844	897	1,017	1,166	1,266	1,382	1,500	1,675	1,866	2,068	2,278	2,502
Total Current Liabilities	**783**	**836**	**1,026**	**982**	**1,073**	**1,204**	**1,304**	**1,420**	**1,538**	**1,713**	**1,904**	**2,106**	**2,316**	**2,540**
Loans and borrowings	184	111	2,031	1,248	977	852	698	1	1	0	0	0	0	0
Convertible redeemable preference shares	8,256	10,767	0	0	0	0	0	0	0	0	0	0	0	0
Deferred tax liabilities	6	1	3	3	3	3	0	3	3	3	3	3	3	3
Warrant liabilities	0	0	54	11	11	11	11	11	11	11	11	11	11	11
Other Liabilities	16	18	27	27	27	27	27	27	27	27	27	27	27	27
Provisions	3	3	18	18	18	18	18	18	18	18	18	18	18	18
Total Non-Current Liabilities	**8,465**	**10,900**	**2,133**	**1,307**	**1,036**	**911**	**754**	**60**	**60**	**59**	**59**	**59**	**59**	**59**
Total liabilities	**9,248**	**11,736**	**3,159**	**2,289**	**2,109**	**2,115**	**2,059**	**1,480**	**1,597**	**1,772**	**1,963**	**2,165**	**2,375**	**2,599**
Equity	**-4,224**	**-6,294**	**8,019**	**6,939**	**6,149**	**5,670**	**5,504**	**5,732**	**6,758**	**8,207**	**10,032**	**12,283**	**15,014**	**18,285**
Total Equity and Liabilities	**5,024**	**5,442**	**11,178**	**9,228**	**8,258**	**7,785**	**7,562**	**7,212**	**8,356**	**9,979**	**11,996**	**14,448**	**17,389**	**20,884**

(A-2: Source: Team Consensus, Bloomberg)

A-3 Cashflow Statement

FY-DEC		Historical								Forecast				
	FY	FY	FY	FY	FY	FY	FY	FY	FY	FY	FY	FY	FY	FY
(Unit: $ In millions)	2019	2020	2021	2022E	2023F	2024F	2025F	2026F	2027F	2028F	2029F	2030F	2031F	2032F
Cash flow from operating activities														
Net Income before tax	**-3,981**	**-2,743**	**-3,552**	**-1,568**	**-1,184**	**-863**	**-522**	**-72**	**364**	**673**	**939**	**1,245**	**1,595**	**1,993**
Adjustments for:														
Amortization for intangible assets	538	261	236	14	15	18	21	25	30	35	40	45	51	57
Depreciation for property, plant and equipment	109	126	109	110	108	114	125	141	160	182	207	234	263	295
Impairment of intangible assets and goodwill	28	28	8	8	10	10	10	9	9	9	9	9	9	9
Impairment of property, plant and equipment	32	15	7	8	7	7	8	9	10	11	12	13	15	17
Stock Based Compensation	34	54	357	403	408	391	346	279	310	353	399	447	497	550
Finance costs	1056	1490	1701	150	99	81	69	31	0	0	0	0	0	0
Finance Income	-85	-53	-65	-39	-23	-18	-19	-17	-38	-71	-114	-167	-231	-309
Impairment on Financial Assets	56	63	19	57	71	85	102	119	137	156	176	197	219	243
Others	1	48	373	0	0	0	0	0	0	0	0	0	0	0
Changes in Working Capital	108	75	-45	-111	-56	-36	-97	-92	-100	-56	-51	-54	-59	-60
Deposits pledged	0	0	-83	-6	0	0	0	0	0	0	0	0	0	0
Cash used in operations	**-2,104**	**-636**	**-935**	**-974**	**-543**	**-211**	**43**	**433**	**881**	**1,292**	**1,617**	**1,970**	**2,359**	**2,794**
Income tax paid	-8	-7	-3	8	0	0	0	0	62	114	160	212	271	339
Net cash used in operating activities	**-2,112**	**-643**	**-938**	**-966**	**-543**	**-211**	**43**	**433**	**943**	**1,407**	**1,777**	**2,181**	**2,630**	**3,133**
Cash flows from investing activities														
Acquisition of property, plant and equipment	-98	-22	-73	-98	-123	-150	-178	-208	-239	-272	-307	-344	-383	-423
Purchase of intangible assets	-42	-18	-12	-16	-20	-25	-29	-34	-39	-45	-50	-57	-63	-70
Proceeds from disposal of property, plant and equipment	6	63	25	7	0	0	0	0	0	0	0	0	0	0
Acquisition of businesses, net of cash acquired	-22	-3	0	-169	0	0	0	0	0	0	0	0	0	0
Acquisition of additional interests in associate	-10	0	-16	-109	0	0	0	0	0	0	0	0	0	0
Proceeds from disposal of associate	0	0	8	0	0	0	0	0	0	0	0	0	0	0
Net (acquisitions of)/proceeds from other investments	579	-359	-2717	-998	250	250	250	250	0	0	0	0	0	0
Restricted cash	-99	-30	0	0	0	0	0	0	0	0	0	0	0	0
Interest received	79	51	28	39	23	18	19	17	38	71	114	167	231	309
Net cash (used in)/from investing activities	**393**	**-318**	**-2,757**	**-1,343**	**130**	**94**	**62**	**25**	**-240**	**-245**	**-244**	**-234**	**-214**	**-184**
Cash flows from financing activities														
Proceeds from exercise of share options	6	5	46	0	0	0	0	0	0	0	0	0	0	0
Proceeds from the reverse recapitalization	0	0	4425	0	0	0	0	0	0	0	0	0	0	0
Payment of share listing and associated expenses	0	0	0	-39	0	0	0	0	0	0	0	0	0	0
Proceeds from bank loans	0	8	1980	7	0	0	0	0	0	0	0	0	0	0
Repayment of bank loans and lease liabilities	-97	-136	-200	-888	-293	-143	-154	-697	-1	0	0	0	0	0
Proceeds from issuance of convertible redeemable	1938	1389	463	0	0	0	0	0	0	0	0	0	0	0
Acquisition of non-controlling interests	-203	0	-460	30	0	0	0	0	0	0	0	0	0	0
Proceeds from subscription of shares in subsidiaries	327	329	443	0	0	0	0	0	0	0	0	0	0	0
Deposits pledged	0	0	-23	-3	0	0	0	0	0	0	0	0	0	0
Interest paid	-20	-17	-108	-150	-99	-81	-69	-31	0	0	0	0	0	0
Net cash from financing activities	**1,951**	**1,578**	**6,566**	**-1,043**	**-392**	**-224**	**-222**	**-728**	**-1**	**0**	**0**	**0**	**0**	**0**
Net increase in cash and cash equivalents	**232**	**617**	**2,871**	**-3,352**	**-806**	**-341**	**-117**	**-270**	**702**	**1,161**	**1,533**	**1,947**	**2,416**	**2,949**
Cash and cash equivalents at January 1	**1,128**	**1,372**	**2,004**	**4,838**	**1,556**	**912**	**733**	**778**	**670**	**1,534**	**2,857**	**4,552**	**6,661**	**9,239**
Effect of exchange rate fluctuations on cash held	12	15	-37	-92	0	0	0	0	0	0	0	0	0	0
Cash and cash equivalents at December 31	**1,372**	**2,004**	**4,838**	**1,394**	**750**	**571**	**616**	**508**	**1,372**	**2,695**	**4,390**	**6,499**	**9,077**	**12,188**
Restricted Cash	139	169	153	162	162	162	162	162	162	162	162	162	162	162
Cash and Cash equivalents after Restricted Cash at December 31	**1,511**	**2,173**	**4,991**	**1,556**	**912**	**733**	**778**	**670**	**1,534**	**2,857**	**4,552**	**6,661**	**9,239**	**12,350**

(A-3: Source: Team Consensus, Bloomberg)

A-4 Adjusted EBITDA

FY-DEC		Historical								Forecast				
	FY	FY	FY	FY	FY	FY	FY	FY	FY	FY	FY	FY	FY	FY
(Unit: $ In millions)	2019	2020	2021	2022E	2023F	2024F	2025F	2026F	2027F	2028F	2029F	2030F	2031F	2032F
EBIT	-3,010	-1,298	-1,555	-1,457	-1,107	-800	-472	-58	325	602	825	1,079	1,364	1,684
Other income	14	33	12	0	0	0	0	0	0	0	0	0	0	0
Income tax expenses	7	2	3	8	0	0	0	0	62	114	160	212	271	339
Depreciation and amortization	647	387	345	124	123	131	146	166	190	217	247	279	314	352
Share based compnesation expenses	34	54	357	403	408	391	346	279	310	353	399	447	497	550
Foreign exchange loss	12	15	-37	-92	0	0	0	0	0	0	0	0	0	0
Impariment loss on goodwill and non-financial assets	60	43	15	16	17	17	18	18	19	20	21	22	24	26
Share listing and associated expenses	0	0	353	0	0	0	0	0	0	0	0	0	0	0
Adjusted EBITDA	**-2,236**	**-764**	**-507**	**-998**	**-559**	**-260**	**38**	**406**	**906**	**1,306**	**1,652**	**2,038**	**2,470**	**2,950**
Breakeven?						**No**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**

(A-4: Source: Team Consensus, Bloomberg)

A-5 DCF Valuation

DCF	2019A	2020A	2021A	2022E	2023F	2024F	2025F	2026F	2027F	2028F	2029F	2030F	2031F	2032F
(Unit: $ USD Millions)														
Revenue	**-845**	**469**	**675**	**1,208**	**1,862**	**2,467**	**3,052**	**3,703**	**4,424**	**5,221**	**5,993**	**6,827**	**7,724**	**8,689**
EBIT	**-3,010**	**-1,298**	**-1,555**	**-1,457**	**-1,107**	**-800**	**-472**	**-58**	**325**	**602**	**825**	**1,079**	**1,364**	**1,684**
(-) Taxes	7	2	3	8	0	0	0	0	62	114	160	212	271	339
NOPLAT (Tax-Effected EBIT)	-3,017	-1,300	-1,558	-1,465	-1,107	-800	-472	-58	264	487	666	867	1,093	1,345
(+) Amortization	538	261	236	14	15	18	21	25	30	35	40	45	51	57
(+) Depreciation	109	126	109	110	108	114	125	141	160	182	207	234	263	295
(+) Write Off/ Impairment	60	43	15	16	17	17	18	18	19	20	21	22	24	26
(+) Stock Based Compensation	34	54	357	403	408	391	346	279	310	353	399	447	497	550
(-) Capital Expenditures	-98	-22	-73	-98	-123	-150	-178	-208	-239	-272	-307	-344	-383	-423
(-) Additions to Intangibles	-42	-18	-12	-16	-20	-25	-29	-34	-39	-45	-50	-57	-63	-70
(+/-) Changes in Net Working Capital	108	75	-45	-111	-56	-36	-97	-92	-100	-56	-51	-54	-59	-60
Free Cash Flow	-2,308	-781	-971	-1,146	-758	-470	-266	72	404	705	924	1,161	1,423	1,720
Discounted Year				0	1	2	3	4	5	6	7	8	9	10
PV Factor				1.00	0.89	0.79	0.70	0.62	0.56	0.49	0.44	0.39	0.35	0.31
PV of FCF				-1,146	-674	-372	-187	45	225	348	405	453	494	531
Terminal Value of Cash Flow				19,839										

For Net Debt (2022 3Q)	
Cash&Equivalents	**5,797**
Debt	**1,294**
Current	47
Non Current	1,248
Cash&Equivalents	
Cash	1,556
Time Deposits	4,114
Other Assets	
Deposit (NCA)	127
Total	**5,797**

Perpetuity Growth Method	
PV of Explicit Cash Flow	4,914
PV of Terminal Cash Flow	6,121
Enterprise Value	11,035
(-) Net Debt	-4,503
Equity Value	15,537
# of Shares Outstanding (Diluted)	3851.3
Target Share Price	$4.03

Assumption

WACC	12.48%	TGR	3.51%

(A-5: Source: Team Consensus, Refinitiv)

A-6 Cost of capital

WACC Compuation	
After tax cost of debt	8.42%
proportion of debt	25%
Cost of equity	13.82%
Proportion of equity	75%
WACC	**12.48%**

Cost of debt via debt rating	
Risk-Free Rate	3.88%
Default Spread	5.26%
Country Spread	1.01%
Tax rate	17%
After Tax Cost of Debt	**8.42%**

Cost of equity via CAPM	
Beta	1.37
Risk-Free Rate	3.88%
Equity Risk Premium	4.63%
Country Risk Premium	1.42%
Specific Risk Premium	2.17%
	13.82%

(A-6, A-7: Source: Refinitiv, Damodaran, Highland Global, World Government Bonds)

A-7 Risk Premium

Country	Country Risk Premium
Singapore	**0.0%**
Malaysia	**2.1%**
Philippines	**3.3%**
Thailand	**2.8%**
Rest of SEA	**2.0%**
Total	**1.4%**

Country	Default Spread
Singapore	0.0%
Malaysia	1.5%
Philippines	2.3%
Thailand	2.0%
Rest of SEA	1.4%
Total	1.0%

	Specific Risk Premium
Sum	**2.17%**
Assigned weightage for each facto	17%
Revenue Growth	0.0%
Financial Risk	0.5%
Operational Risk	3.0%
Profitability Risk	10.0%
Industry Risk	0.0%
Customer conecntration	0.0%

A-8 Beta

Beta	Unlevered Beta (5Y)	Average
Ride-Hailing		
UBER	1.11	
Comfort Delgro	0.84	
Lyft	1.53	**1.16**
Deliveries		
Delivery Hero	0.84	
Meituan	0.87	
Doordash	1.34	**1.02**
Payments		
Visa	0.94	
Mastercard	1.08	
Paypal	1.28	**1.10**
Online Ads		
Meta	1.16	
Baidu	0.63	
Tencent	0.56	**0.78**

Segment	EV	Weightage	Unlevered Beta
Ride-Hailing	3,579	50.3%	1.16
Deliveries	2,050	28.8%	1.02
Payments	1,312	18.4%	1.10
Online Ads	177	2.5%	0.78
Total	**7,118**		**1.10**
		Tax rate	17.0%
		D/E Ratio	33.0%
		Re-Levered Bet	**1.37**

(A-8: Source: Yahoo Finance, Team Consensus)

A-9 Terminal Growth Rate

	Singapore	Malaysia	philippines	Thailand	Rest of SEA
Histrocial 10 Years	3.26%	3.83%	4.91%	2.34%	3.58%
Weighted Average	**3.51%**				
Historical 10 years data					
2012	4.44%	5.47%	6.90%	7.24%	
2013	4.82%	4.69%	6.75%	2.69%	
2014	3.94%	6.01%	6.35%	0.98%	
2015	2.98%	5.09%	6.35%	3.13%	
2016	3.56%	4.45%	7.15%	3.44%	
2017	4.66%	5.81%	6.93%	4.18%	
2018	3.66%	4.84%	6.34%	4.22%	
2019	1.10%	4.44%	6.12%	2.15%	
2020	-4.14%	-5.65%	-9.52%	-6.20%	
2021	7.61%	3.13%	5.70%	1.57%	

(A-9: Source: World Bank)

A-10 Price/Sales

Segment	P/SALES (x)	Valuation	Value Per Share	% of SOTP
Mobility	10.32x	9,255	$2.40	64.8%
Deliveries	4.21x	3,330	$0.86	23.3%
Financial Services	16.28x	1,431	$0.37	10.0%
Enterprise & new initiative	3.10x	266	$0.07	1.9%
Equity Value			14,282	$3.71

(A-10,A-11 : Source: Refinitiv, Team Consensus)

A-11 Price/Book

Ticker	Mutliple
UBER.K	8.33
CMDG.SI	0.88
GOTO.JK	0.93
DHER.DE	3.04
3690.HK	7.52
DASH.K	2.85
PYPL.O	4.3
SE	6.25
Median Multiple	3.67
Equity Value	25,466
Equity Value per Shar	$6.63

A-12 Enterprise Value / Sales

Segment	Methodology	EV/SALES (x)	2023F Revenue	Valuation	Value Per Share	% of SOTP
Mobility	EV/SALES	5.87x	856	5,021	$1.30	50.3%
Deliveries	EV/SALES	3.30x	755	2,493	$0.65	28.8%
Financial Services	EV/SALES	2.30x	84	193	$0.05	18.4%
Enterprise & new initiatives	EV/SALES	2.02x	82	166	$0.04	2.5%
Enterprise Value				6,658	$2.04	
(+) Net Cash/(Debt)				4,503	$1.17	
(-) Non Controlling Interest (3Q 2022)				45	$0.01	
Total Equity Value				11,116	$3.20	
# of Shares Outstanding (Diluted)				3,851		

Premium (Discount) given	Description
Mobility	**+50% from the meidan (Comfort Delgro)** Gojek has EV/Sales of 7.22x, even the stock has plunged down from the peak in Nov 2022. Thus, we believe 5.87x multiple is still conservative
Delivery	**+30% from the median (Doordash)** We don't believe multiple from deliveries segment can be higher than Meituan (4.02x), as Meituan successfully breakeven the profitability. However, we understand that Grab delivery segment has high potential insdie, thus we gave 30% premium from the Doordash.
Financial Services	**-84% from the median (-30% from Paypal).** This is because we see Grab's financial services segment as a nascent industry.

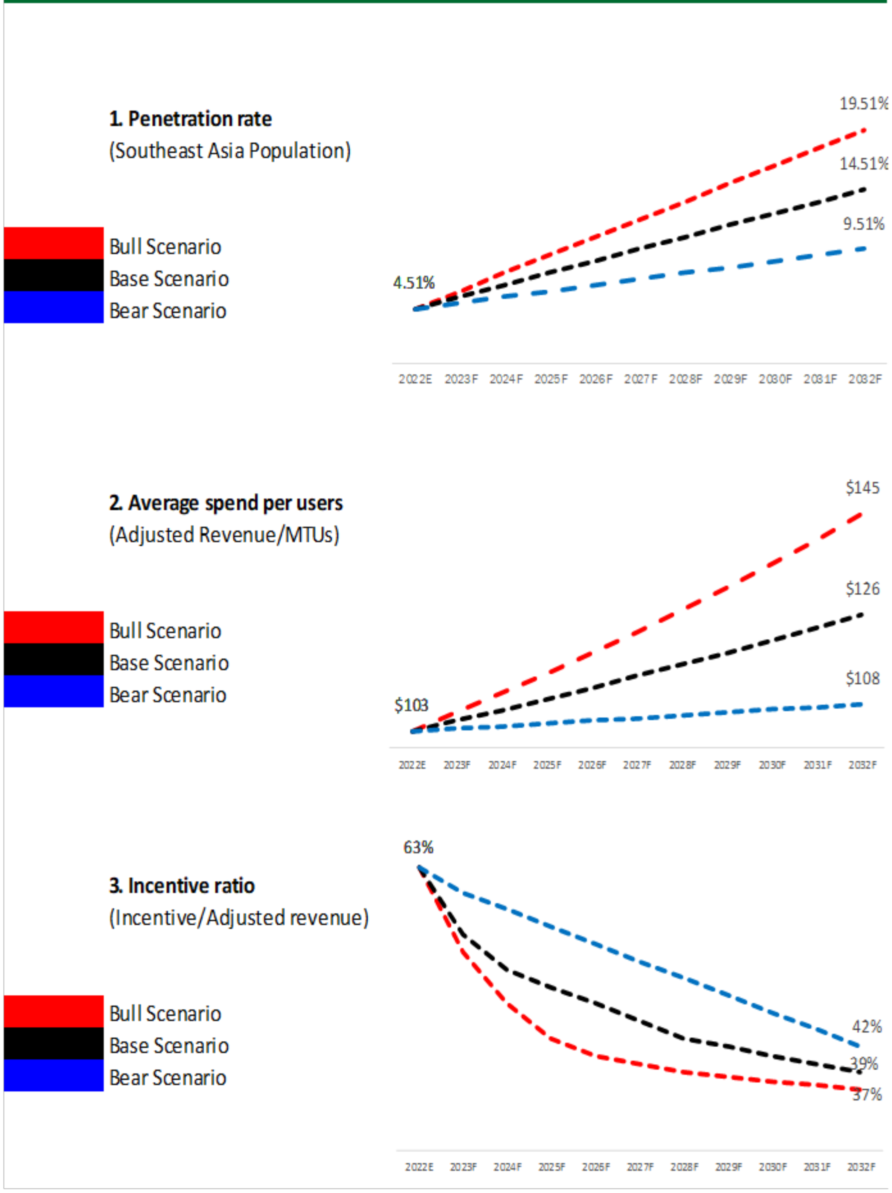
(A-12: Source: Refinitiv, Team Consensus)

A-13 Peers Multiple

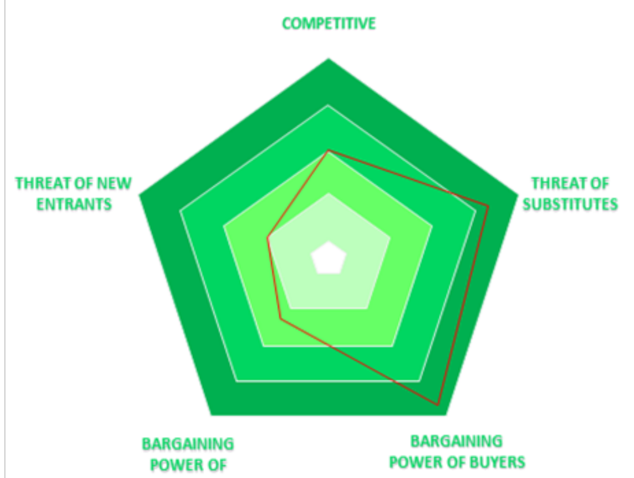
Ticker	Company Name	EV/SALES 2022E	P/S 2022E	P/B 2022E	Ticker	Company Name	EV/SALES 2022E	P/S 2022E	P/B 2022E
GRAB.O	GRAB Holdings	7.05x	10.35x	2.62x					
Ride Hailing					**Deliveries**				
UBER.K	UBER	2.03x	1.85x	8.33x	DHER.DE	DELIVERY HERO SE	1.78x	1.49x	3.04x
CMDG.SI	Comfortdelgro	3.91x	0.68x	0.88x	3690.HK	MEITUAN	4.02x	4.21x	7.52x
GOTO.JK	Gojek	7.22x	10.32x	0.93x	DASH.K	DOORDASH	2.54x	3.12x	2.85x
Maximum		7.22x	10.32x		Maximum		4.02x	4.21x	
75th Percentile		5.57x	6.09x		75th Percentile		3.28x	3.67x	
Median		3.91x	1.85x		Median		2.54x	3.12x	
25th Percentile		2.97x	1.27x		25th Percentile		2.16x	2.31x	
Minimum		2.03x	0.68x		Minimum		1.78x	1.49x	
Payments					**Online Advertising**				
V	VISA	14.63x	14.43x	11.44x	META.OQ	META Platforms Inc	2.83x	3.10x	2.84x
MA	MASTER CARD	16.57x	16.28x	52.49x	BIDU.O	BAIDU INC	2.01x	2.59x	1.42x
PYPL.O	PAYPAL	3.29x	3.29x	4.30x	SE	Sea Ltd	2.02x	2.27x	6.25x
Maximum		16.57x	16.28x		Maximum		2.83x	3.10x	
75th Percentile		15.60x	15.36x		75th Percentile		2.43x	2.85x	
Median		14.63x	14.43x		Median		2.02x	2.59x	
25th Percentile		8.96x	8.86x		25th Percentile		2.02x	2.43x	
Minimum		3.29x	3.29x		Minimum		2.01x	2.27x	

(A-13: Source: Refinitiv)

A-14 Scenario Assumptions



B-1 Porter's Five Forces



B-2 PESTLE Analysis

P — **Political** 1) Government stability
2) Tax policy

E — **Economical** 1) Digital economy to grow in SEA
2) Inflation rate
3) Interest rate

S — **Social** 1) Shift in consumer behaviour sparks high demand for online delivery and payment

T — **Technological** 1) High penetration rate for mobile phone can translate to higher usage of services provided by Grab

L — **Legal** 1) Gig worker protections
2) Regulations

E — **Environmental** 1) CO2 Polution remains concern

(A-14, B-1, B-2: Source: Team Consensus)

C-1 Outstanding stock options

Name	Outstanding options to purchase (Class B)	Per-share exercise price (Class B)	Outstanding options to purchase (Class A)	Per-share exercise price (Class A)	Expiration date
Anthony Tan Ping	12,130,207	$1.9			31-Dec-29
Tan Hooi Ling	Not stated	$1.9			24-Dec-29
Maa Ming Hokng	Not stated	$0.67-$4.03			23 Nov 2027 – 28 Dec 2030
Ong Chin Yin			Not stated	$0.48-$2.32	25 Aug 2026 – 13 Dec 2029

(C-1: Source: Company Data)

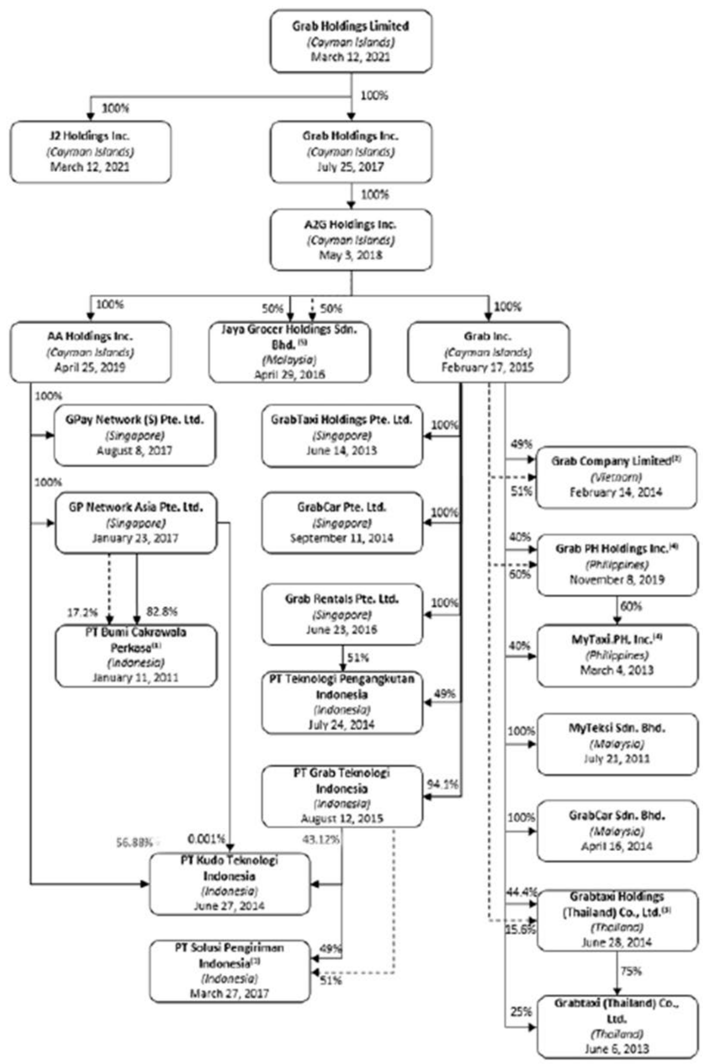
C-2 Restricted stock units (Class A/B)

Name	Outstanding restricted shares (Class B)	Grant date	Name	Outstanding restricted shares (Class A)	Grant date
Anthony Tan Ping	16,942,754	11-Apr-21	Peter Oey	Not stated	30 Apr 2020 – 11 Apr 2021
Tan Hooi Ling	Not stated	11-Apr-21	Ong Chin Yin	Not stated	23 Oct 2018 – 11 Apr 2021
Maa Ming Hokng	Not stated	1) 30 Apr 2018 – 28 May 2018	Alex Hugate	Not stated	15-Feb-22
		2) 11 Apr 2021	Ng Shin Ein	Not stated	28-Jan-21
			Oliver Jay	Not stated	10-Mar-21

(C-2: Source: Company Data)

C-3 Corporate Structure

The following summary diagram illustrates our principal corporate structure as of the date of this annual report (with reference to the country and date of formation):



——— Our direct and/or indirect equity ownership.
- - - Our contractual rights. See footnotes below for information on our contractual rights.

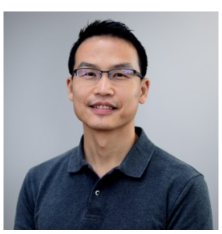
(C-3: Source: Company Data)

C-4 Board of directors

	**Anthony Tan**	**Chief Executive Officer, Co-Founder and Chairman**	University of Chicago: Bachelor of Arts (Economics and Public Policy), Harvard Business School: Masters of Business Administration Accolades: Fortune's 40 under 40 in 2016 and 2018, The Bloomberg 50 in 2017, Fast Company's 100 most creative people in 2018, and Fortune's World's 50 greatest leaders list in 2021. Awarded Nikkei Asia Prize in 2020.
	**Hooi Ling Tan**	**Co-Founder and Director**	University of Bath: Bachelor of Engineering (Mechanical), Harvard Business School: Masters of Business Administration Ex- McKinsey & Company Consultant, the experience of leading high-priority strategic and operational projects at Salesforce.
	**Dara Khosrowshahi**	**Independent Director**	Brown University: Bachelor of Science in Electrical and Electric Engineering. CEO of UBER, ex-CEO of Expedia, an online travel company. Experience in senior management roles at IAC/InteractiveCorp between 1998 to 2005. Ex-Board of directors in New York Times and TripAdvisor, Inc.
	**John Rogers**	**Independent Director**	Chief Financial Officer of WPP Plc. Previously, Mr. Rogers had contributed most of his career to J Sainsbury Plc. CEO of J Sainsbury plc (2016-2019), as CFO (2010-2016), as Property Director (2008-2010), as Director of Group Finance (2007-2008), and as Director of Corporate Finance (2005-2007).
	**Ng Shin Ein**	**Independent Director**	Queen Mary and Westfield College: Bachelor of Laws, Postgraduate Diploma in Singapore Law from the University of Singapore. Career as an M&A lawyer worked as managing partner of Gryphus Capital Management, a Private Equity firm. MS. Ng also worked at SGX on the IPO Approval Committee. Experience on the board of directors of various companies, currently she serves in Starhub Limited, SGX, and Grab.
	**Oliver Jay**	**Independent Director**	University of Pennsylvania: Bachelor of Arts, Masters of Business Administration in Harvard Business School. He is currently serving as Chief Revenue Officer at Asana, a work management platform. Before, Mr. Jay worked at Dropbox, a cloud storage service, as the Head of Asia Pacific and Latin America.

(C-4: Source: Company Website)

C-5 Senior management

	**Anthony Tan**	**Chief Executive Officer, Co-Founder and Chairman**	University of Chicago: Bachelor of Arts (Economics and Public Policy), Harvard Business School: Masters of Business Administration Accolades: Fortune's 40 under 40 in 2016 and 2018, The Bloomberg 50 in 2017, Fast Company's 100 most creative people in 2018, and Fortune's World's 50 greatest leaders list in 2021. Awarded Nikkei Asia Prize in 2020.
	**Hooi Ling Tan**	**Co-Founder and Director**	University of Bath: Bachelor of Engineering (Mechanical), Harvard Business School: Masters of Business Administration Ex- McKinsey & Company Consultant, the experience of leading high-priority strategic and operational projects at Salesforce.
	**Alex Hungate**	**Chief Operating Officer**	University of Oxford: Bachelor in Engineering, Economics, and Management, Harvard Business School: Masters of Business Administration. Mr. Hungate has 25 years of experience in the financial services, logistics, and food services industries (SATS, HSBC, Reuters). He is leading the execution of Grab's Superapp while ensuring operational quality.
	**Chin Yin Ong**	**Chief People Officer**	CPO takes charge of the People Operations, Grabber Technology Solutions, and Corporate Real Estate and Security teams. Ms.Yin has more than 20 years of experience across Sales&Marketing and Human Resources. She previously worked in Yum Brands and several companies in the Hi-Tech industries. MS. Yin also contributes to women's rights, currently contributing as a mentor of Young Women's Leadership Connection.
	**Ming Maa**	**President**	Massachusetts Institute of Technology: Bachelor of Science and Master of Science. Ming Maa Supervises corporate development activities, including strategic partnerships and investment opportunities, and manages Grab's overall capital structure. Mr. Maa has 12 years of finance and investment experience. He joined Grab from SoftBank Group and he also worked in Ancora Capital Management and Goldman Sachs.
	**Peter Oey**	**Chief Financial Officer**	University of Sydney: Bachelor of Economics, Accounting and Commercial Law. Mr. Oey manages the company's financial operations, accounting operations. He has 20 years of corporate financial and strategic planning experience. Before joining Grab, he served CFO at LegalZoom and MyLife.com and he also worked at Activision Blizzard as VP in various departments.
	**Suthen Thomas Paradatheth**	**Group Chief Technology Officer**	Multimedia University: Bachelor's degree in Computer Software. Harvard Kennedy School: Masters of Public Policy. Suthen is the GCTO, he oversees Grab's technology team across every segment. Suthen was the first member of Grab, he worked since the company was founded in 2012.

(C-5: Source: Company Website)