

Sea Limited

1Q preview: Steady revenues driven by take-rate rise, S&M likely to remain low

Maintain Rating: NEUTRAL | PO: 92.00 USD | Price: 74.45 USD

Take-rate drives e-com rev; S&M low; but subdued gaming

After a strong 4Q, we expect Sea to report qoq decline in revenue/net income. We expect gaming business momentum to continue to remain weak in 1Q and estimate 4% qoq decline in adjusted revenues to \$523 mn. We model quarterly active users of 456 mn (6% qoq decline) and quarterly paying users to be 41.5 mn (5% qoq decline). We est. e-com GMV to decline 4% qoq to \$17.3 bn and expect take-rate to increase to 12.5% (11.7% in 4Q) on back of increase in core take-rates to merchants. As a result, we expect 3% qoq increase in e-com revenues to \$2.18 bn. We expect Brazil losses to decline qoq. As we expect Shopee to show qoq increase in e-commerce revenues, we expect sales & marketing to remain subdued again in 1Q (but we do model a qoq increase). We expect operating income of \$284 mn (17% qoq decline) implying operating margin of 9%.

Quality of beat & commentary to determine stock reaction

We expect Sea to show a small beat vs. 1Q consensus estimates driven by better take-rates and lower S&M expenses. As highlighted in our [4Q results report](#) (see report), we note that Sea has set a high benchmark to beat. In our view, quality of beat will be key to determine the stock price reaction i.e., if it is driven by subdued S&M or stronger and sustainable revenue growth. We also think con-call commentary would be critical. Key points to gauge: **1)** Any narrative towards GMV acceleration; **2)** Visibility or announcement of any new games and **3)** Inflection point in Free Fire business.

Based on our investor interactions, we note that investors are keen to understand any impact from TikTok on core SE Asian business, steady state revenue growth in Asia at stable margins and path to profitability in Brazil. We maintain Neutral on Sea on balanced risk-reward. The note also has charts highlighting the latest Sensor Tower data for Free Fire traction + Shopee & its peers.

Estimates (Dec) (US\$)	2021A	2022A	2023E	2024E	2025E
Net Income (Adjusted - mn)	(2,010)	(1,399)	1,433	1,746	2,034
EPS	(3.96)	(2.97)	2.57	3.13	3.65
EPS Change (YoY)	-16.7%	24.9%	NM	21.9%	16.5%
Dividend / Share	0	0	0	0	0
Free Cash Flow / Share	(0.759)	(3.12)	0.079	1.95	3.54
Valuation (Dec)					
P/E	NM	NM	29.00x	23.79x	20.42x
Dividend Yield	0%	0%	0%	0%	0%
EV / EBITDA*	NM	NM	20.21x	16.89x	13.13x
Free Cash Flow Yield*	-0.947%	-4.07%	0.106%	2.61%	4.75%

* For full definitions of *IQmethodSM* measures, see page 12.

03 May 2023

Equity

Sachin Salgaonkar >>
 Research Analyst
 BofAS India
 +91 22 6632 8667
sachin.salgaonkar@bofa.com

Stock Data

Price	74.45 USD
Price Objective	92.00 USD
Date Established	8-Mar-2023
Investment Opinion	C-2-9
52-Week Range	40.67 USD-93.70 USD
Mkt Val / Shares Out (mn)	41,552 USD / 558.1
Average Daily Value (mn)	260.41 USD
Free Float	11.0%
BofA Ticker / Exchange	SE / NYS
Bloomberg / Reuters	SE US / SE.N
ROE (2023E)	22.3%
Net Dbt to Eqty (Dec-2022A)	-27.12%

[Grab: 1Q preview: Room to beat & raise full year guidance](#)

[Live streaming commerce: A look at how E-com names are responding to TikTok](#)

[Increasing newsflow on effective cross border taxation in Brazil: Risks to Shopee](#)

[AMER traffic collapse, cross-border surge, MELI, NTCO, LREN, Walmex and more...](#)

S&M: Sales & marketing costs

GMV: Gross merchandise value

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Refer to important disclosures on page 13 to 15. Analyst Certification on page 9. Price Objective Basis/Risk on page 9.

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Timestamp: 03 May 2023 01:59AM EDT

iQprofileSM Sea Limited

Key Income Statement Data (Dec)	2021A	2022A	2023E	2024E	2025E
(US\$ Millions)					
Sales	9,955	12,450	13,888	16,490	20,319
Gross Profit	3,764	4,989	6,430	7,513	9,272
Sell General & Admin Expense	(4,803)	(5,025)	(4,283)	(4,986)	(5,737)
Operating Profit	(1,583)	(1,133)	1,416	1,759	2,394
Net Interest & Other Income	(132)	(322)	180	190	201
Associates	0	0	0	0	0
Pretax Income	(1,715)	(1,454)	1,596	1,949	2,595
Tax (expense) / Benefit	(333)	(168)	(179)	(219)	(577)
Net Income (Adjusted)	(2,010)	(1,399)	1,433	1,746	2,034
Average Fully Diluted Shares Outstanding	518	542	558	558	558

Key Cash Flow Statement Data

Net Income	(2,053)	(1,611)	1,433	1,746	2,034
Depreciation & Amortization	278	454	459	484	493
Change in Working Capital	(787)	(1,083)	(1,738)	(827)	(1,020)
Deferred Taxation Charge	NA	NA	NA	NA	NA
Other Adjustments, Net	2,771	1,185	462	366	1,112
Cash Flow from Operations	209	(1,056)	616	1,770	2,620
Capital Expenditure	(602)	(635)	(572)	(684)	(646)
(Acquisition) / Disposal of Investments	(500)	0	0	0	0
Other Cash Inflow / (Outflow)	(2,665)	(1,794)	117	128	139
Cash Flow from Investing	(3,767)	(2,429)	(455)	(556)	(506)
Shares Issue / (Repurchase)	3,498	0	0	0	0
Cost of Dividends Paid	0	0	0	0	0
Cash Flow from Financing	7,402	400	50	50	50
Free Cash Flow	(394)	(1,691)	44	1,086	1,974
Net Debt	(4,994)	(1,576)	(1,737)	(2,950)	(5,064)
Change in Net Debt	(920)	3,418	(161)	(1,214)	(2,113)

Key Balance Sheet Data

Property, Plant & Equipment	1,680	2,346	1,333	1,554	1,671
Other Non-Current Assets	1,941	1,969	2,348	1,895	1,930
Trade Receivables	NA	NA	NA	NA	NA
Cash & Equivalents	9,248	6,030	6,241	7,504	9,668
Other Current Assets	5,888	6,658	6,988	8,310	10,256
Total Assets	18,756	17,003	16,909	19,263	23,524
Long-Term Debt	3,967	4,096	4,146	4,196	4,246
Other Non-Current Liabilities	188	191	1	70	1,041
Short-Term Debt	286	358	358	358	358
Other Current Liabilities	6,890	6,577	5,169	5,665	6,591
Total Liabilities	11,332	11,222	9,674	10,289	12,236
Total Equity	7,424	5,811	7,236	8,974	11,289
Total Equity & Liabilities	18,756	17,033	16,909	19,263	23,524

iQmethodSM - Bus Performance*

Return On Capital Employed	-15.7%	-8.2%	13.1%	13.9%	13.4%
Return On Equity	-37.3%	-21.3%	22.3%	21.8%	20.2%
Operating Margin	-15.9%	-9.1%	10.2%	10.7%	11.8%
EBITDA Margin	-13.1%	-5.5%	13.5%	13.6%	14.2%

iQmethodSM - Quality of Earnings*

Cash Realization Ratio	NM	NM	0.4x	1.0x	1.3x
Asset Replacement Ratio	2.2x	1.4x	1.2x	1.4x	1.3x
Tax Rate (Reported)	NM	NM	11.2%	11.2%	22.2%
Net Debt-to-Equity Ratio	-67.3%	-27.1%	-24.0%	-32.9%	-44.9%
Interest Cover	-11.4x	-7.3x	30.1x	37.0x	49.8x

Key Metrics

* For full definitions of iQmethodSM measures, see page 12.

Company Sector

Internet/e-Commerce

Company Description

Sea Limited is a mobile and PC gaming platform and developer (Garena) and an e-commerce marketplace operator (Shopee) in ASEAN and Taiwan. It recently expanded its e-commerce business into Brazil and Mexico, while its first self-developed game, "Free Fire," has a global user base. Sea also runs a digital payments platform supporting the two businesses (SeaMoney). Sea Ltd is headquartered in Singapore and was founded in 2009.

Investment Rationale

We have a Neutral rating on Sea Limited. In our view, it is best positioned in our coverage to ride the e-commerce boom in Southeast Asia given its increasingly dominant online marketplace (Shopee), while its expansion into LatAm offers further substantial growth upside potential in LT. However, we see growth slowdown and expect lower GMV growth on e-com and continued slow down of Free Fire/overhang from lack of a new game. TikTok also poses a competitive intensity risk in the region on e-com

Stock Data

Price to Book Value

5.8x

1Q preview estimates

Exhibit 1: Sea 1Q preview estimates

Expect 4% sequential decline in revenues

\$mn	1Q22	4Q22	1Q23E	QoQ	YoY
- Digital entertainment	1,135	949	748	-21%	-34%
- E-commerce	1,516	2,103	2,171	3%	43%
- Digital financial services & others	248	400	392	-2%	58%
Total revenues	2,900	3,452	3,312	-4%	14%
Gross profit	1,170	1,697	1,590	-6%	36%
Gross margin	40.4%	49.2%	48.0%		
Operating income/ (loss)	(498)	343	284	-17%	
Net loss	(579)	427	275	-36%	
E-com GMV	17,400	18,000	17,370	-4%	0%
Take rates %	8.7%	11.7%	12.5%		

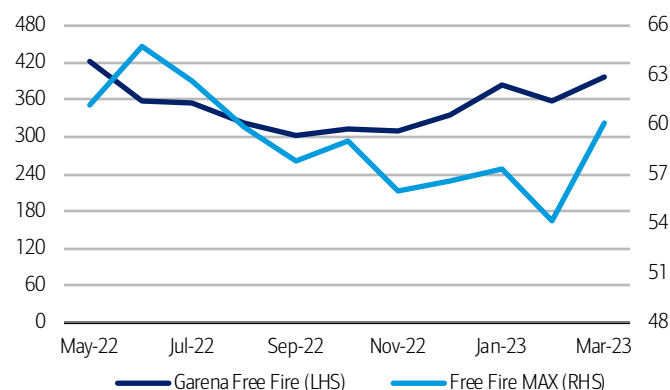
Source: BofA Global Research estimates, company report

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Sensor Tower Mar 23: Free Fire

Exhibit 2: Garena Free Fire & Free Fire Max global MAU base

Sequential improvement in March

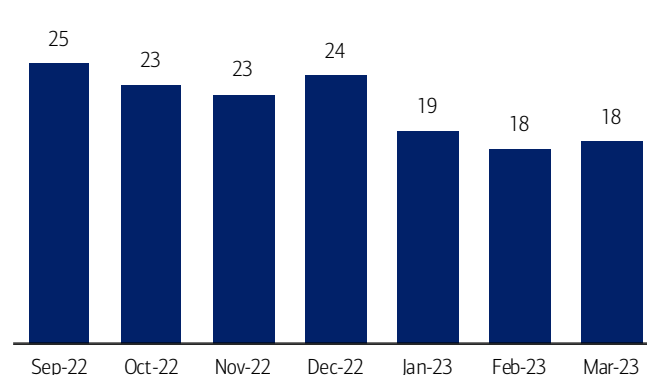


Source: Sensor Tower

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Exhibit 3: Free fire - monthly worldwide revenues (\$mn)

Revenues lower than past levels



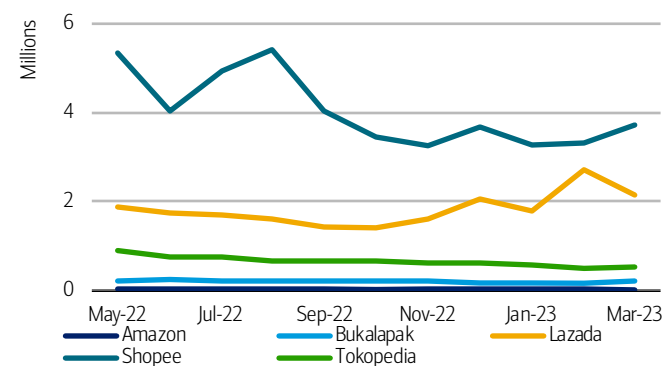
Source: Sensor Tower

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E-commerce trends for Shopee & peers

Exhibit 4: Indonesia - Android app downloads (mn)

Lazada witnessed decline of 21% MoM; Shopee +12% MoM

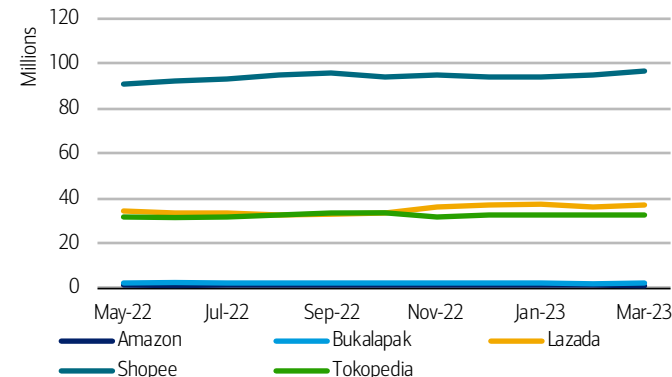


Source: Sensor Tower

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Exhibit 5: Indonesia - Monthly Active Users (mn)

Lazada flat; +4% MoM for Shopee

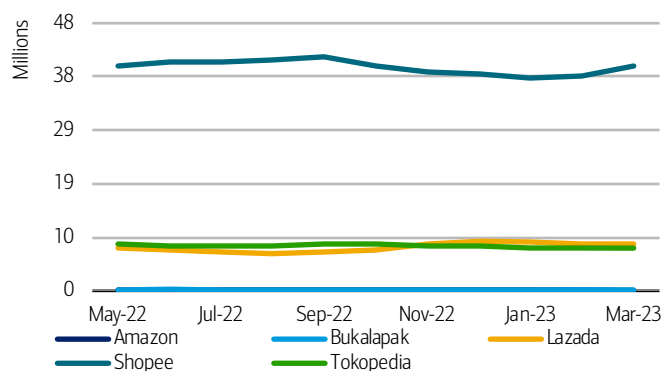


Source: Sensor Tower

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Exhibit 6: Indonesia - Daily Active Users (mn)

Both Shopee, Lazada +2% MoM; Shopee leads

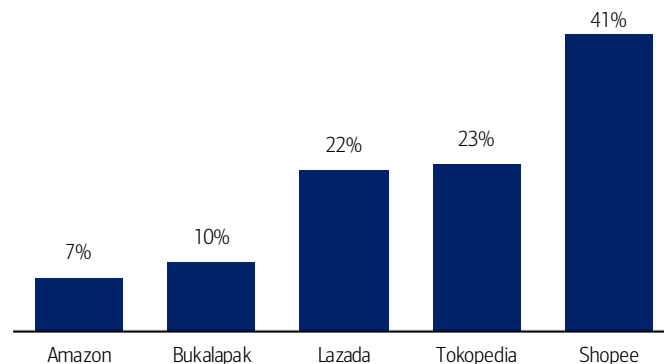


Source: Sensor Tower

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Exhibit 7: Indonesia - DAU/MAU

Retention highest for Shopee

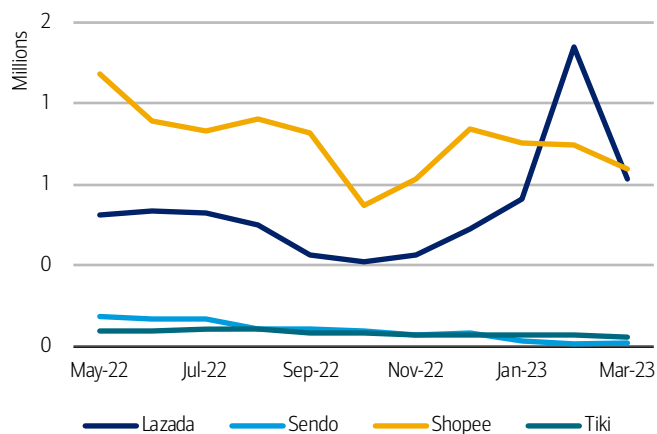


Source: Sensor Tower

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Exhibit 8: Vietnam - Android app downloads (mn)

Lazada -44% MoM; Shopee down 12.5% MoM

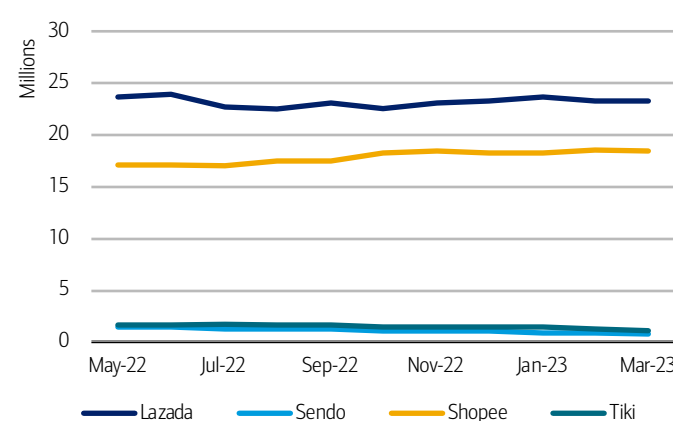


Source: Sensor Tower

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Exhibit 9: Vietnam - Monthly Active Users (mn)

Shopee and Lazada stable

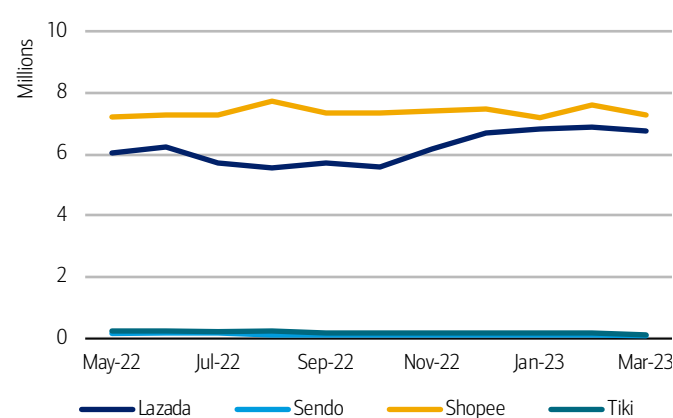


Source: Sensor Tower

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Exhibit 10: Vietnam - Daily Active Users (mn)

Shopee down 4% MoM; Lazada declined 1.7% MoM

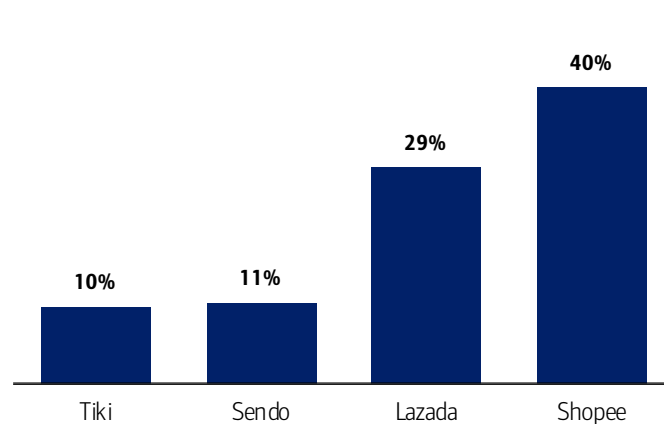


Source: Sensor Tower

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Exhibit 11: Vietnam - DAU/MAU

Ratio highest for Shopee

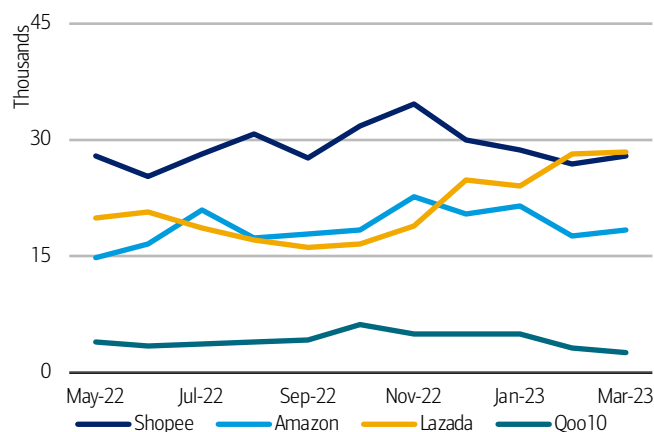


Source: Sensor Tower

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Exhibit 12: Singapore - Android app downloads ('000s)

Lazada remained flat; Shopee & Amazon +4% MoM

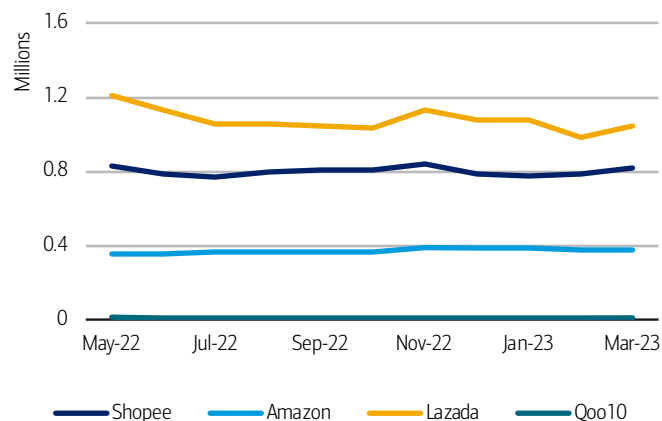


Source: Sensor Tower

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Exhibit 13: Singapore - Monthly Active Users (mn)

Sequential growth for Shopee/Lazada/Amazon; Qoo10 declined

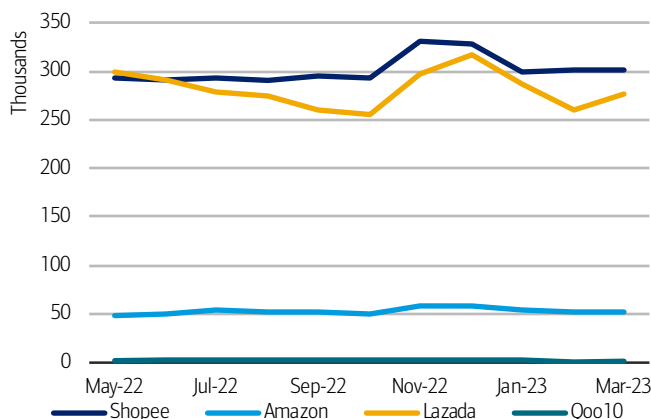


Source: Sensor Tower

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Exhibit 14: Singapore - Daily active users ('000s)

Amazon/Lazada grew 1.8%/5.7% MoM; Shopee flat

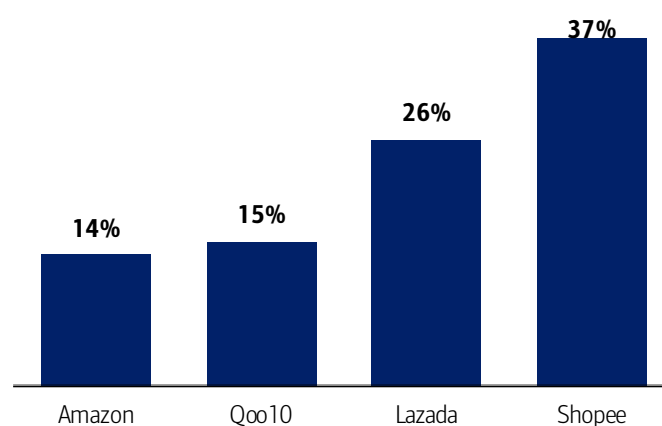


Source: Sensor Tower

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Exhibit 15: Singapore - DAU/MAU

Ratio highest for Shopee

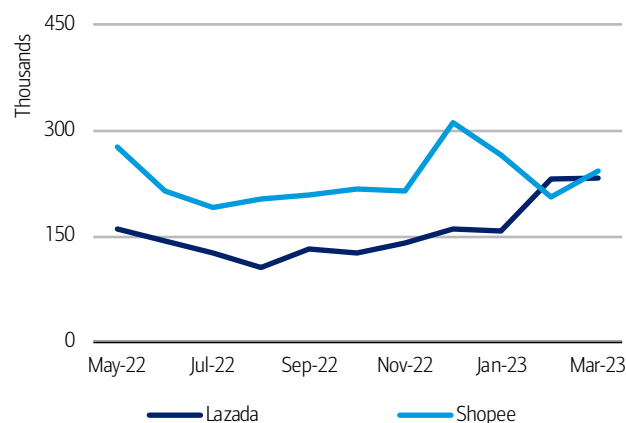


Source: Sensor Tower

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Exhibit 16: Malaysia - Android app downloads ('000s)

Uptick in downloads for Shopee; Lazada remained flat

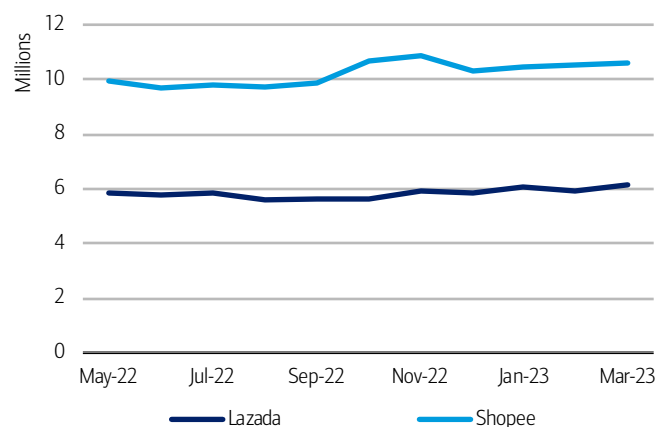


Source: Sensor Tower

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Exhibit 17: Malaysia - Monthly Active Users (mn)

Sequential growth for both apps

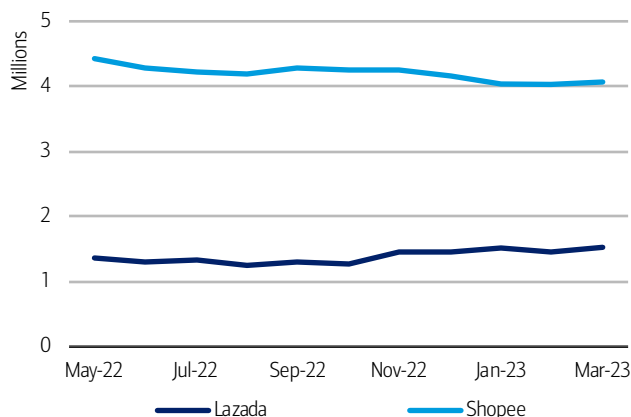


Source: Sensor Tower

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Exhibit 18: Malaysia - Daily Active Users (mn)

+5%/+1% MoM for Lazada/Shopee

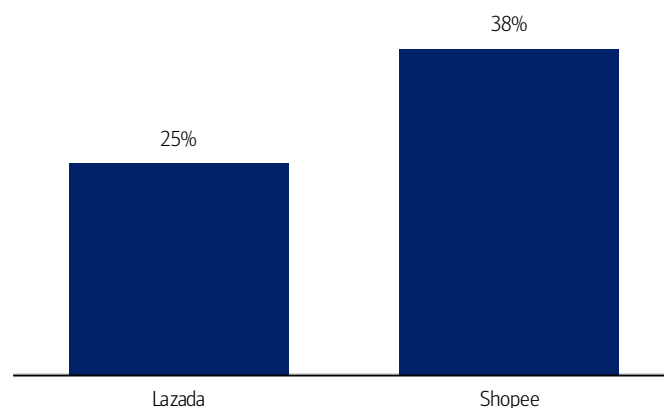


Source: Sensor Tower

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Exhibit 19: Malaysia - DAU/MAU

Ratio highest for Shopee

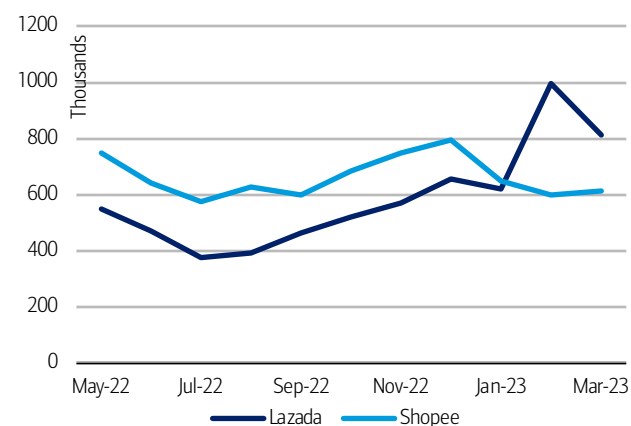


Source: Sensor Tower

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Exhibit 20: Philippines - Android app downloads ('000s)

Lazada downloads declined 18% MoM

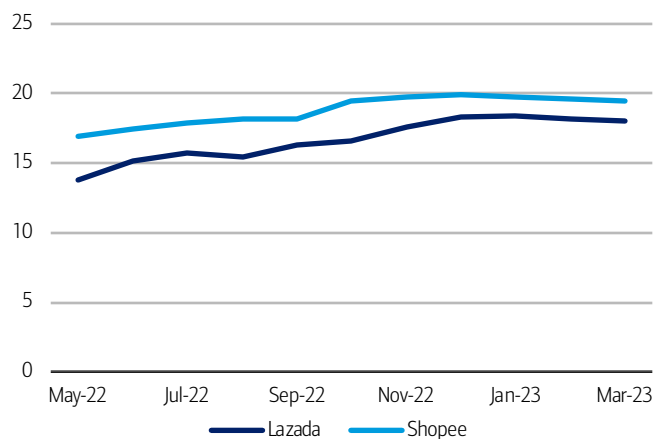


Source: Sensor Tower

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Exhibit 21: Philippines - Monthly Active Users (mn)

Flat MAUs for both Shopee and Lazada

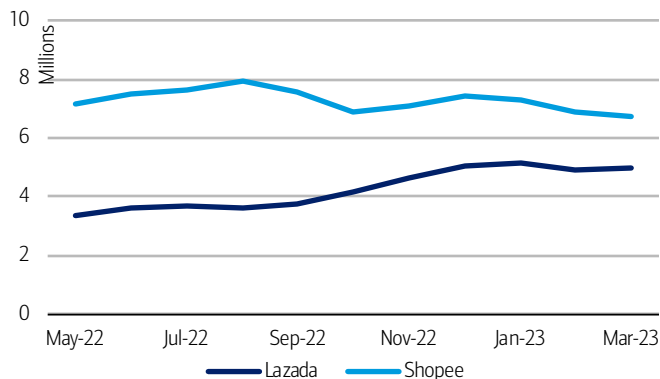


Source: Sensor Tower

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Exhibit 22: Philippines - Daily active users (mn)

Users declined 2.5% MoM for Shopee; Lazada +1.4% MoM

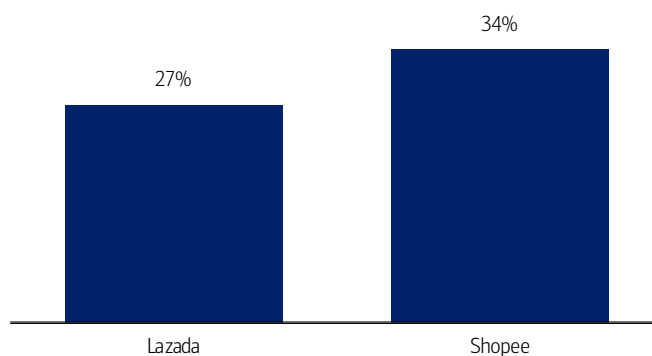


Source: Sensor Tower

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Exhibit 23: Philippines - DAU/MAU

Retention highest for Shopee

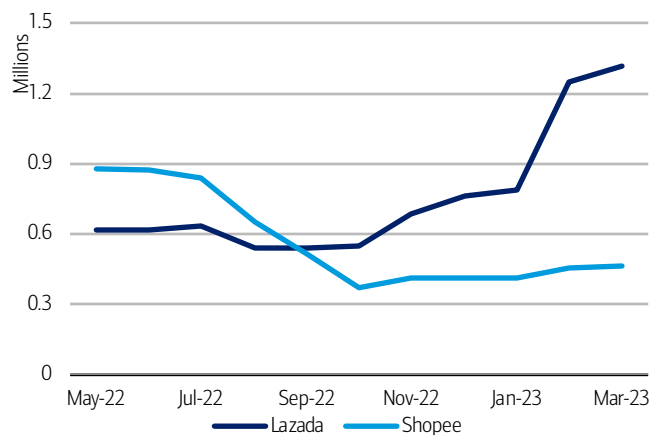


Source: Sensor Tower

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Exhibit 24: Thailand - Android app downloads (mn)

+5% MoM in Lazada, widening gap with Shopee

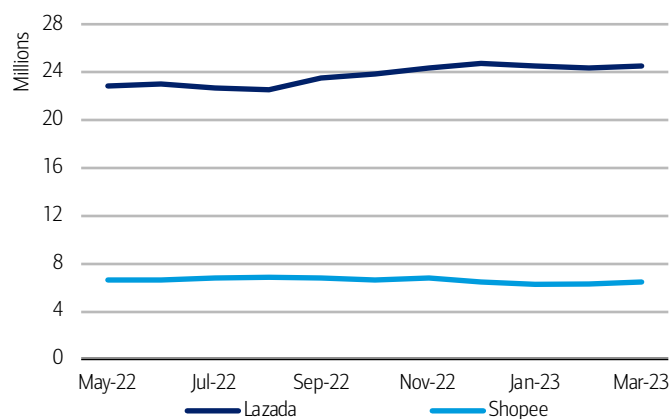


Source: Sensor Tower

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Exhibit 25: Thailand - Monthly Active Users (mn)

+3%/+1 MoM for Shopee/Lazada

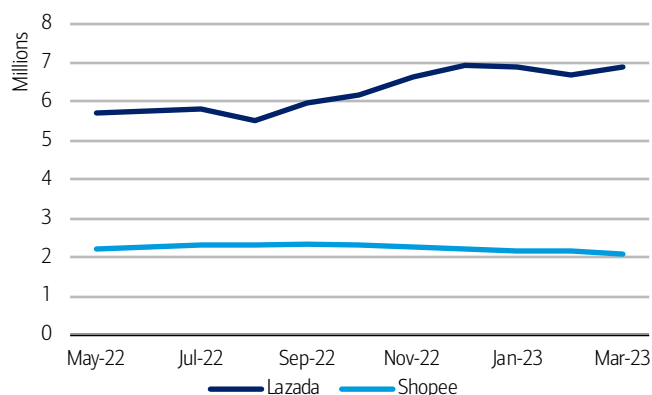


Source: Sensor Tower

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Exhibit 26: Thailand - Daily active users (mn)

-4% MoM for Shopee; +3% MoM for Lazada

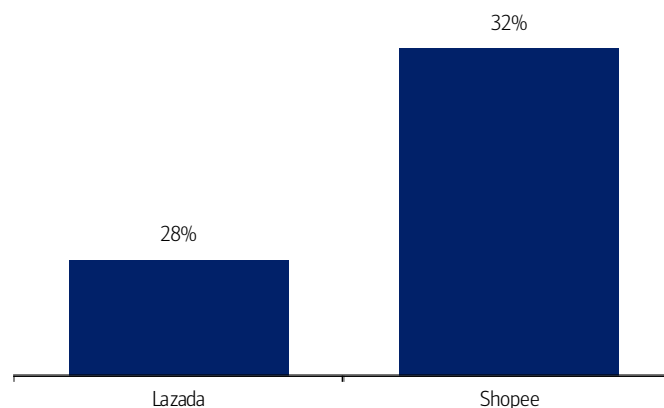


Source: Sensor Tower

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Exhibit 27: Thailand - DAU/MAU

Retention ratio highest for Shopee



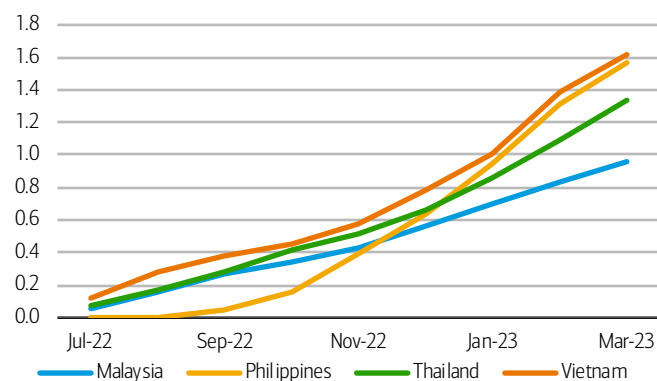
Source: Sensor Tower

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TikTok Seller App: Continued traction

Exhibit 28: TikTok Seller app – Cumulative app downloads

Vietnam and Philippines neck-to-neck in terms of downloads

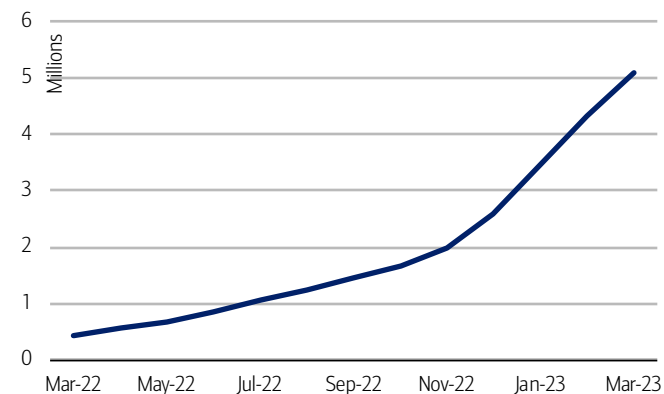


Source: Sensor Tower

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Exhibit 29: Indonesia – TikTok Seller Cumulative app downloads

+18% MoM growth in Mar'23

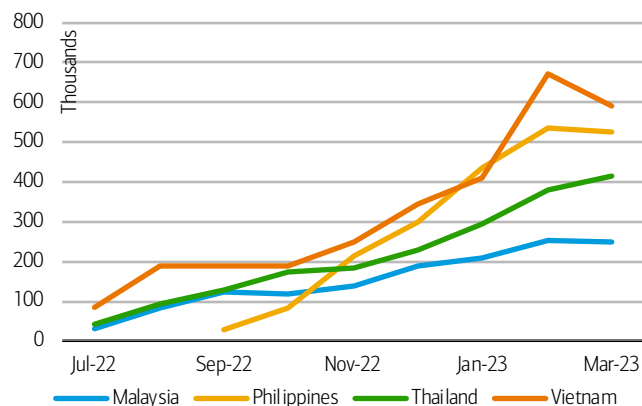


Source: Sensor Tower

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Exhibit 30: TikTok Seller app - Monthly Active Users

TikTok gained traction from June; -12% MoM decline in Vietnam

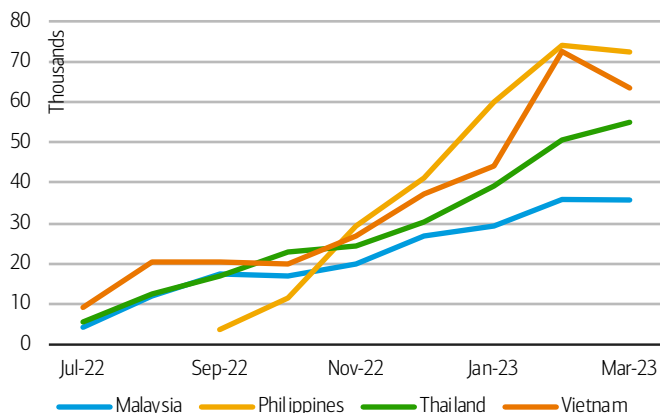


Source: Sensor Tower

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Exhibit 31: TikTok Seller app - Daily Active Users

Continued growth in Thailand

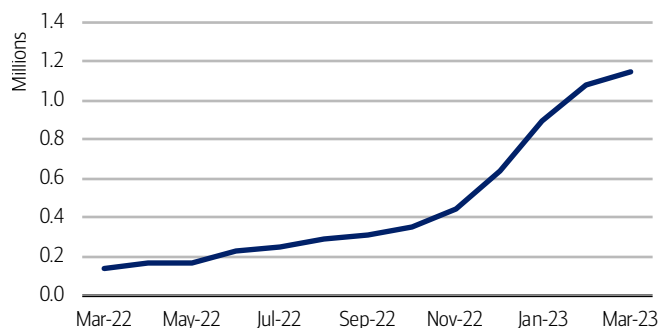


Source: Sensor Tower

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Exhibit 32: Indonesia – TikTok Seller app Monthly Active Users

TikTok crossed c.1mn mark in MAUs

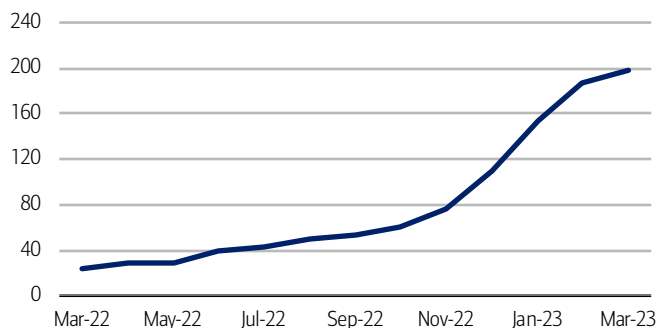


Source: Sensor Tower

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Exhibit 33: Indonesia – TikTok Seller app Daily Active Users

+6% MoM growth in Indonesia



Source: Sensor Tower

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Price objective basis & risk

Sea Limited (SE)

Our PO of USD92 is based on a sum-of-the-parts valuation. We value Garena's gaming business at USD14 per share or 5.5x 2024E EV/EBITDA, which is at a discount to global peers.

The Shopee business is valued at USD63 per share based on 0.4x 2024E EV/GMV (vs 0.3x 2023E EV/GMV earlier) and in our view fairly reflects Shopee's rapid growth, increasingly dominant position in one of the fastest-growing e-commerce regions in the world and optionality in Latin America.

We value its Digital Banking unit at 1x EV/IC (USD2/share) given growth optionality, its SeaMoney digital payments business at 0.05x EV/TPV for 2024E (USD8/share), and Sea Capital PE fund at 1.2x EV/IC (USD2/share).

Upside: 1) faster-than-expected revenue growth with profitability, 2) good traction of more self-developed games

Downside: 1) continued higher losses, 2) higher competition in SE Asia e-com markets, leading to slowing revenue growth.

Analyst Certification

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APR - Internet, Media and Software Coverage Cluster

Investment rating	Company	BofA Ticker	Bloomberg symbol	Analyst
BUY				
	Agora	API	API US	Daley Li, CFA
	AiHuiShou	RERE	RERE US	Joyce Ju
	Alibaba Group	BABA	BABA US	Joyce Ju
	Alibaba Group	BABAF	9988 HK	Joyce Ju
	Alibaba Health	ALBHF	241 HK	Miranda Zhuang, CFA
	Baidu.com	BIDU	BIDU US	Miranda Zhuang, CFA
	Baidu.com	BAIDF	9888 HK	Miranda Zhuang, CFA
	Bilibili	BILI	BILI US	Lei Zhang
	Bilibili	BLBLF	9626 HK	Lei Zhang
	Chinasoft International	CFTLF	354 HK	Paul Dewberry
	Cloud Music	XVWJF	9899 HK	Lei Zhang
	Dada Nexus	DADA	DADA US	Lei Zhang
	DBAPPSecurity	XDBAF	688023 CH	Daley Li, CFA
	Dingdong	DDL	DDL US	Joyce Ju
	East Money	XEQTF	300059 CH	Michael Li
	Glodon Company	XGCOF	002410 CH	Daley Li, CFA
	Grab Holdings	GRAB	GRAB US	Sachin Salgaonkar
	Hello Group	MOMO	MOMO US	Lei Zhang
	Indiamart Intermesh Limited	XEITF	INMART IN	Sachin Salgaonkar
	iQIYI	IQ	IQ US	Lei Zhang
	JD Health	JDHIF	6618 HK	Miranda Zhuang, CFA
	JD.com	JD	JD US	Joyce Ju
	JD.com	JDCMF	9618 HK	Joyce Ju
	JYP Entertainment	ALNNF	035900 KS	Susie Lee
	Kingdee International Software	KGDEF	268 HK	Daley Li, CFA
	Kuaishou	KUASF	1024 HK	Lei Zhang
	Makemytrip Limited	MMYT	MMYT US	Sachin Salgaonkar
	Meituan	MPNGF	3690 HK	Lei Zhang
	Naver Corporation	NHNCF	035420 KS	Susie Lee
	NCSoft	NCSCF	036570 KS	Susie Lee
	NetEase	NETTF	9999 HK	Lei Zhang
	NetEase, Inc	NTES	NTES US	Lei Zhang
	Nine Entertainment Company	NNMTF	NEC AU	Ware Kuo
	Nykaa	XQQGF	NYKAA IN	Sachin Salgaonkar
	PB Fintech	XPFXF	POLICYBZ IN	Sachin Salgaonkar
	Pinduoduo Inc.	PDD	PDD US	Joyce Ju
	Plan B Media PCL	XMKTF	PLANB TB	Thititthep Nophaket
	PT Bukalapak.com	BKLPF	BUKA JI	Sachin Salgaonkar
	PVR-Inox Ltd	PVRLF	PVRL IN	Sachin Salgaonkar
	Qi An Xin	XQTFD	688561 CH	Daley Li, CFA
	REA Group	RPGRF	REA AU	Ware Kuo
	Seek Limited	SKLTF	SEK AU	Ware Kuo
	Tencent Holdings	TCTZF	700 HK	Miranda Zhuang, CFA
	Tencent Music	TME	TME US	Lei Zhang
	Tencent Music	XWFWF	1698 HK	Lei Zhang
	ThunderSoft	XSTS F	300496 CH	Daley Li, CFA
	Trip.com Group	TCOM	TCOM US	Joyce Ju
	Trip.com Group	TRPCF	9961 HK	Joyce Ju
	Vipshop Holdings	VIPS	VIPS US	Joyce Ju
	Weibo Corporation	WB	WB US	Miranda Zhuang, CFA
	Weibo Corporation	WEIBF	9898 HK	Miranda Zhuang, CFA
	YG Entertainment	XYEIF	122870 KS	Susie Lee

APR - Internet, Media and Software Coverage Cluster

Investment rating	Company	BofA Ticker	Bloomberg symbol	Analyst
	Yonyou Network	XYNIF	600588 CH	Daley Li, CFA
	YY	YY	YY US	Lei Zhang
NEUTRAL				
	AfreecaTV	WNTHF	067160 KS	Susie Lee
	Autohome	ATHM	ATHM US	Miranda Zhuang, CFA
	Autohome	XXYZF	2518 HK	Miranda Zhuang, CFA
	Baozun	BZUN	BZUN US	Joyce Ju
	Carsales	CSSSF	CAR AU	Ware Kuo
	Coupang	CPNG	CPNG US	Susie Lee
	Delhivery	XDVLF	DELHIVER IN	Sachin Salgaonkar
	Huya	HUYA	HUYA US	Lei Zhang
	HYBE	XBGOF	352820 KS	Susie Lee
	Kakao Corp.	DAUCF	035720 KS	Susie Lee
	KE Holdings	BEKE	BEKE US	Miranda Zhuang, CFA
	KE Holdings	XSQRF	2423 HK	Miranda Zhuang, CFA
	Krafton	XKINF	259960 KS	Susie Lee
	NavInfo	XWLHF	002405 CH	Daley Li, CFA
	Paytm	XUXBF	PAYTM IN	Sachin Salgaonkar
	PropertyGuru	PGRU	PGRU US	Sachin Salgaonkar
	Sea Limited	SE	SE US	Sachin Salgaonkar
	Seven West Media	WANHF	SWM AU	Ware Kuo
	The ONE Enterprise	XUFCF	ONEE TB	Thititthep Nophaket
	VGI Public Company Limited	XZQHF	VGI TB	Thititthep Nophaket
	WiseTech Global Limited	WTC HF	WTC AU	Ware Kuo
	XD Inc.	XDNCF	2400 HK	Lei Zhang
	Zomato Limited	XMWRF	ZOMATO IN	Sachin Salgaonkar
UNDERPERFORM				
	Altium Limited	ALMFF	ALU AU	Ware Kuo
	Appen Ltd	APPEF	APX AU	Ware Kuo
	BEC World	XBJHF	BEC TB	Thititthep Nophaket
	CJ ENM	CJHOF	035760 KS	Susie Lee
	Com2uS Corp	XOYAF	078340 KS	Jeehoon Jeong, CFA
	Douyu	DOYU	DOYU US	Lei Zhang
	Info Edge	IFOEF	INFOE IN	Sachin Salgaonkar
	Kakao Games	XKKGf	293490 KS	Susie Lee
	Ming Yuan Cloud	XWTAF	909 HK	Daley Li, CFA
	Netmarble	XLGHF	251270 KS	Susie Lee
	Pearl Abyss Corp	XEPAF	263750 KS	Susie Lee
	Ping An Healthcare and Technology	PANHf	1833 HK	Miranda Zhuang, CFA
	Technology One Limited	THNOF	TNE AU	Ware Kuo
	Weimob	WEMXF	2013 HK	Daley Li, CFA
	Xero Limited	XROLF	XRO AU	Ware Kuo
	Zip Co Limited	ZIZTF	ZIP AU	Ware Kuo

IQmethodSM Measures Definitions

Business Performance

Return On Capital Employed

Return On Equity
Operating Margin
Earnings Growth
Free Cash Flow

Quality of Earnings

Cash Realization Ratio
Asset Replacement Ratio
Tax Rate
Net Debt-To-Equity Ratio
Interest Cover

Valuation Toolkit

Price / Earnings Ratio
Price / Book Value
Dividend Yield
Free Cash Flow Yield
Enterprise Value / Sales

EV / EBITDA

Numerator

NOPAT = (EBIT + Interest Income) × (1 – Tax Rate) + Goodwill Amortization

Net Income
Operating Profit
Expected 5 Year CAGR From Latest Actual
Cash Flow From Operations – Total Capex

Numerator

Cash Flow From Operations
Capex
Tax Charge
Net Debt = Total Debt – Cash & Equivalents
EBIT

Numerator

Current Share Price
Current Share Price
Annualised Declared Cash Dividend
Cash Flow From Operations – Total Capex
EV = Current Share Price × Current Shares + Minority Equity + Net Debt + Other LT Liabilities
Enterprise Value

Denominator

Total Assets – Current Liabilities + ST Debt + Accumulated Goodwill
Amortization
Shareholders' Equity
Sales
N/A
N/A

Denominator

Net Income
Depreciation
Pre-Tax Income
Total Equity
Interest Expense

Denominator

Diluted Earnings Per Share (Basis As Specified)
Shareholders' Equity / Current Basic Shares
Current Share Price
Market Cap = Current Share Price × Current Basic Shares
Sales

Basic EBIT + Depreciation + Amortization

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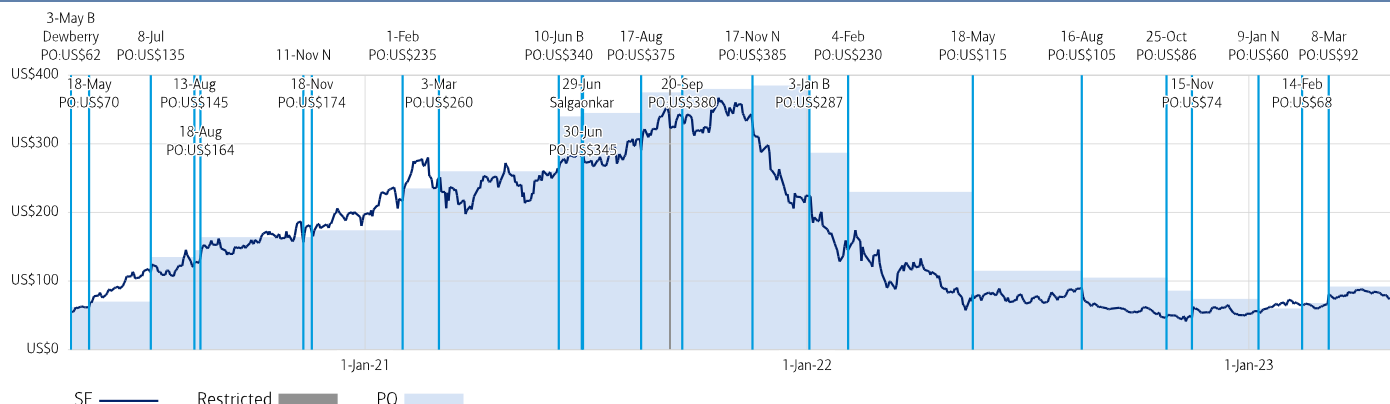
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SE — Restricted PO

B: Buy, N: Neutral, U: Underperform, PO: Price Objective, NA: No longer valid, NR: No Rating

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Equity Investment Rating Distribution: Technology Group (as of 31 Mar 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships ^{R1}	Count	Percent
Buy	229	53.88%	Buy	107	46.72%
Hold	105	24.71%	Hold	50	47.62%
Sell	91	21.41%	Sell	29	31.87%

Equity Investment Rating Distribution: Global Group (as of 31 Mar 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships ^{R1}	Count	Percent
Buy	1869	53.01%	Buy	1030	55.11%
Hold	827	23.45%	Hold	476	57.56%
Sell	830	23.54%	Sell	389	46.87%

^{R1} Issuers that were investment banking clients of BofA Securities or one of its affiliates within the past 12 months. For purposes of this Investment Rating Distribution, the coverage universe includes only stocks. A stock rated Neutral is included as a Hold, and a stock rated Underperform is included as a Sell.

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Investment rating	Total return expectation (within 12-month period of date of initial rating)	Ratings dispersion guidelines for coverage cluster ^{R2}
Buy	≥ 10%	≤ 70%
Neutral	≥ 0%	≤ 30%
Underperform	N/A	≥ 20%

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