India Equity Research | BFSI - Banks November 6, 2022 **Result Update**

Bank of Baroda

Refer to important disclosures at the end of this report

All-round strong beat in 2Q; outlook also upbeat

- Bank of Baroda (BoB) reported a strong beat on PAT at Rs33.1bn (vs our est of Rs23.7bn), mainly led by robust growth, sharp 31bps QoQ jump in margins (including one-off interest recovery on upgradation of lumpy account and swap unwinding) to 3.3% and lower LLP, as NPA ratio declined 94bps QoQ due to higher recoveries/w-offs.
- Strong credit growth at 21% YoY/5% QoQ was supported by continued strong traction in the retail and overseas book. Bank expects domestic corporate growth to accelerate too, more so in the seasonally-strong Q4. This, coupled with continued asset re-pricing, should keep margins healthy.
- Bank guides for ~0.9% RoA in FY23 and ~1% in FY24 on the back of better growth/moderation in LLP, partly offset by increase in staff cost (Rs2.5bn per quarter) due to the impending new wage negotiations. The MD's current term is likely to expire in Jan-23, but could be extended by 6 months by the government.
- We have revised our earnings for FY23-25E by 18%-22% and the rollover TP to 0.8x Sep-24E ABV, leading to revision in TP to Rs175/share (up from Rs140). We retain our BUY rating on the stock.
- What we liked: Strong credit growth (21% YoY) coupled with margin uptick (31bps QoQ) and improvement in headline NPA ratios (94bps QoQ). What we did not like: Rising share of the low-margin overseas book and moderation in CASA ratio.
- Strong credit growth, asset re-pricing and one-off interest recovery leads to sharp margin uptick: Overall credit growth was strong at 21% YoY/ 5% QoQ, led by robust traction in the retail and overseas book. Retail growth was, in turn, backed by strong growth in Housing, PL and Auto loans. But growth in agri, MSME was relatively moderate, while the domestic corporate book witnessed de-growth. However, NIMs improved by 31bps QoQ to 3.3% bolstered by strong growth, asset re-pricing, one-off interest recovery on upgradation of lumpy account and swap unwinding. Bank expects margins to remain healthy, as the full impact of asset re-pricing is yet to be seen.
- Elevated slippages, but sharp reduction in NPAs due to higher recoveries/w-offs: Fresh slippages were elevated at Rs44.7bn/2.6% of loans, but higher recoveries/upgrades and w-offs led to a sharp 94bps reduction in overall GNPA ratio to 5.3%. The restructured pool sharply moderated to Rs177bn/2.1% of loans vs 2.5% of loans in Q1. Given the improving repayments, the RSA pool should trend down further. Bank has increased its specific PCR during the quarter to a high of 79% and, thus, reduced its LLP guidance to 1%-1.25% with a positive bias. Bank is largely compliant with standard asset provisioning requirement on stressed public-sector enterprises and, in fact, had a marginal reversal during Q2.

Please see our sector model portfolio (Emkay Alpha Portfolio): BFSI-Banks (Page 8)

Financial Snapshot (Standalone)

(Rs mn)	FY21	FY22	FY23E	FY24E	FY25E
Net income	417,430	441,053	473,541	560,318	640,258
Net profit	8,290	72,723	117,506	147,550	174,169
EPS (Rs)	1.7	14.0	22.7	28.5	33.6
ABV (Rs)	117.4	146.6	169.9	194.6	223.5
RoA (%)	0.1	0.6	0.9	0.9	1.0
RoE (%)	1.1	8.9	12.9	14.4	14.9
P/E (x)	85.5	10.3	6.4	5.1	4.3
P/ABV	1.2	1.0	0.9	0.7	0.6

Source: Company, Emkay Research This report is intended for team.emkay@whitemarquesolutions.com use and downloaded at 11/07/2022 12:46 Phile



Your success is our success

СМР	Target Price
Rs 145 as of (November 5, 2022)	Rs 175 (▲) 12 months
Rating	Upside
BUY (∎)	21.1 %

Change in Estimates

Change in Es	stimat	es					
EPS Chg FY2	3E/F	/24E ('	%)	18.2/22.2			
Target Price of	hange	e (%)		25.0			
Target Period	(Mon	ths)		12			
Previous Reco	c			BUY			
Emkay vs Co	nsen	sus					
E	EPS E	stimat	es				
		F	Y23E	FY24E			
Emkay			22.7	28.5			
Consensus			19.0	22.7			
Mean Consen	isus T	P (12N	1)	Rs 152			
Stock Details	6						
Bloomberg Co				BOB IN			
Face Value (F	Rs)			2			
Shares outsta	nding	(mn)		5,171			
52 Week H/L				152 / 77			
M Cap (Rs bn	/USD	bn)		748 / 9.07			
Daily Avg Vol	ume (I	nos.)	2	25,856,300			
Daily Avg Tur	nover	(USD	mn)	41.6			
Shareholding	g Patt	ern Se	p '22				
Promoters				64.0%			
FIIs				8.9%			
DIIs				18.9%			
Public and Ot	hers			8.2%			
Price Perform	nance)					
(%)	1M	3M	61				
Absolute	8	22	3				
Rel. to Nifty	3	17	2	3 39			
Relative price	e tren	d					
¹⁵⁰] Rs				% 💒 50			
134 -				- 36			
118 -		44	AN AN	- 22			
102 -	YY?"	Ŭ₩^	A .	- 8			
86 -	1			6			
70 47 Nov-21 Jan-22 I		/av-22.1	ul-22 S				
	Equity (LH			Rel to Nifty (RHS)			
Source: Bloomb							
following person(Source: Bloomberg This report is solely produced by Emkay Global. The following person(s) are responsible for the production of the recommendation:						

Anand Dama

anand.dama@emkayglobal.com +91 22 6624 2480

Heet Khimawat

heet.khimawat@emkayglobal.com +91 22 6612 1275

Dixit Sankharva

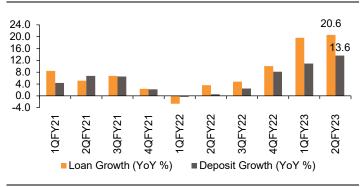
dixit.sankharva@emkayglobal.com +91 22 6612 1281

Soumya Jain

soumya.jain@emkayglobal.com +91 22-6612-1262

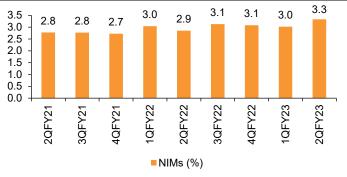
Story in Charts

Exhibit 1: Credit growth accelerates, led by strong traction in retail/overseas loans



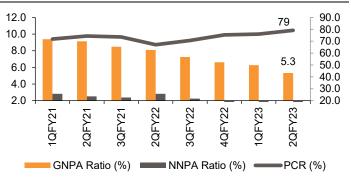
Source: Company, Emkay Research

Exhibit 3: Margins increased owing to better growth, asset re-pricing and one-off benefit from swap unwinding/lumpy recovery



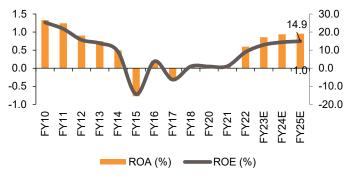
Source: Company, Emkay Research

Exhibit 5: Better recoveries/upgrades and w-offs led to 94bps reduction in GNPA ratio



Source: Company, Emkay Research

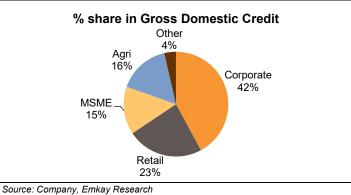
Exhibit 7: We expect return ratios to improve, led by better growth and lower LLP

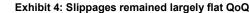


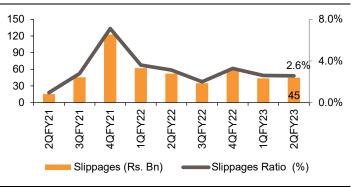
Source: Company, Emkay Research

4 S ဖ ω

Exhibit 2: The bank carries a relatively healthy share of the retail portfolio among PSBs (barring SBI)

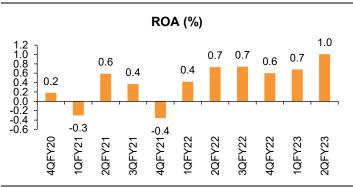






Source: Company, Emkay Research

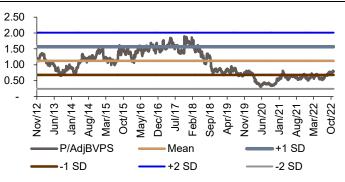
Exhibit 6: Better NIM and contained LLP led to 1% RoA



Source: Company, Emkay Research

Source: Company, Emkay Research

Exhibit 8: The stock currently trades at 0.8x one-year forward ABV



for team.emkay@whitemarquesolutions.com use and

Exhibit 9: Actual vs Estimate (Q2FY23)

(Rs mn)	Actuals	Estim	ates	Vai	riation	Comments	
		Emkay	Consensus	Emkay	Consensus		
Net income	120,003	109,437	112,196	10%	7%	Better margins and higher other income led to a beat	
PPOP	60,310	51,815	60,683	16%	-1%	Higher net income led to a beat	
PAT	33,134	23,720	22,701	40%	46%	Contained LLP led a PAT beat	

Source: Company, Emkay Research

Exhibit 10: Quarterly Summary

(Rs mn)	1QFY22	2QFY22	3QFY22	4QFY22	1QFY23	2QFY23	YoY (%)	QoQ (%)	FY22	FY23E	YoY (%)
Interest Earned	170,526	166,914	179,630	181,736	189,375	212,542	27	12	698,808	852,774	22
Interest Exp	91,610	91,256	94,110	95,619	100,991	110,798	21	10	372,594	459,601	23
Net Interest Income	78,917	75,659	85,520	86,117	88,384	101,745	34	15	326,213	393,173	21
Global NIMs (reported)	3.04	2.85	3.13	3.08	3.02	3.33	48bps	31bps	2.88	3.04	16bps
Non-interest Income	28,632	35,792	25,193	25,223	11,820	18,258	-49	54	114,840	80,368	-30
Operating Expenses	51,540	54,756	55,880	54,988	54,929	59,693	9	9	217,164	242,221	12
Pre Provisioning Profit	56,008	56,695	54,833	56,351	45,275	60,310	6	33	223,888	231,320	3
Provision & Contingencies	40,054	27,536	25,070	37,364	16,848	16,275	-41	-3	130,024	76,707	-41
РВТ	15,954	29,159	29,763	18,988	28,427	44,035	51	55	93,864	154,613	65
Income Tax Expense (Gain)	3,868	8,281	7,793	1,200	6,746	10,901	32	62	21,142	37,107	76
Net Profit/(Loss)	12,086	20,878	21,970	17,788	21,681	33,134	59	53	72,723	117,506	62
Gross NPA (%)	8.86	8.10	7.25	6.61	6.26	5.32	-278bps	-94bps	6.61	4.59	-202bps
Net NPA (%)	3.03	2.83	2.25	1.72	1.58	1.16	-167bps	-42bps	1.72	1.19	-53bps
Deposits (Rs in bn)	9,313	9,595	9,780	10,459	10,327	10,902	14	6	10,459	11,768	13
Net Advances (Rs in bn)	6,684	6,938	7,322	7,772	7,996	8,366	21	5	7,772	9,161	18
Source: Company, Emkay Research											

Exhibit 11: Revision in estimates

Y/E Mar (Rs mn)		FY23E			FY24E			FY25E		
	Earlier	Revised	Change	Earlier	Revised	Change	Earlier	Revised	Change	
Net income	458,565	473,541	3.27%	528,834	560,318	5.95%	601,762	640,258	6.40%	
PPOP	225,911	231,320	2.4%	270,029	286,152	6.0%	306,953	330,016	7.5%	
PAT	99,385	117,506	18.2%	120,723	147,550	22.2%	145,311	174,169	19.9%	
EPS (Rs)	19.2	22.7	18.2%	23.3	28.5	22.2%	28.1	33.6	19.9%	
BV (Rs)	182.7	185.6	1.6%	202.8	210.7	3.9%	226.9	240.4	5.9%	

Source: Company, Emkay Research

Exhibit 12: Key assumptions

(%)	FY22E	FY23E	FY24E	FY25E
Loan Growth	10.0	17.9	18.0	17.6
Deposit Growth	8.2	12.5	14.8	17.0
NIM	2.9	3.0	3.1	3.1
GNPA	6.6	4.6	3.6	3.0
Credit Cost	1.5	1.0	0.9	0.8

Source: Company, Emkay Research

This report is intended for team.emkay@whitemarquesolutions.com use and downloaded at 11/07/2022 12:46 PM

Exhibit	13:	Key	ratios	and	trends

	2QFY21	3QFY21	4QFY21	1QFY22	2QFY22	3QFY22	4QFY22	1QFY23	2QFY23
Loans (Rs mn)	7,187,541	7,451,654	7,511,716	7,111,503	7,337,221	7,716,958	8,178,499	8,395,537	8,732,936
Balance Sheet									
Loans (Rs bn)	7,188	7,452	7,512	7,112	7,337	7,717	8,178	8,396	8,733
-growth (YoY)%	5.3	6.3	1.8	-3.4	2.1	3.6	8.9	18.1	19.0
-growth (QoQ)%	-2.4	3.7	0.8	-5.3	3.2	5.2	6.0	2.7	4.0
Liability Profile									
Deposit (Rs bn)	9,543	9,546	9,670	9,313	9,595	9,780	10,459	10,327	10,902
-growth (YoY)%	6.7	6.5	2.2	-0.3	0.5	2.5	8.2	10.9	13.6
-growth (QoQ) %	2.1	0.0	1.3	-3.7	3.0	1.9	6.9	-1.3	5.6
CASA (%)	36.7	37.9	40.2	40.2	39.2	42.0	41.5	41.1	39.8
Capital Adequacy									
CAR (%)	13.3	12.9	15.0	15.4	15.6	15.5	16.0	15.5	15.3
Tier I (%)	10.8	10.6	12.7	13.1	13.1	13.2	13.5	13.0	12.8
Asset Quality									
GNPA (%)	9.1	8.5	8.9	8.9	8.1	7.3	6.6	6.3	5.3
NNPA (%)	2.5	2.4	3.1	3.0	2.8	2.2	1.7	1.6	1.2
PCR (%)	74.4	73.6	67.3	73.6	67.1	70.6	75.3	75.9	79.1
Slippages %	1.0	2.8	7.1	3.0	3.1	2.0	3.3	2.6	2.6
NIM – Global (%)	2.8	2.8	2.7	3.0	2.9	3.1	3.1	3.0	3.3
NIM – Domestic (%)	2.9	3.0	2.7	3.1	2.9	3.2	3.1	3.1	3.4
Cost-to-Income (%)	45.7	47.5	47.7	47.9	49.1	50.5	49.4	54.8	49.7
ROE Decomposition (%)									
NII	3.0	3.1	2.8	3.1	3.0	3.4	3.2	3.1	3.5
Other Income (Ex Treasury)	0.8	0.8	1.6	0.8	0.9	0.8	0.9	0.3	0.6
Treasury	0.4	0.4	0.4	0.4	0.5	0.2	0.1	0.1	0.1
Opex	1.9	2.0	2.3	2.1	2.2	2.2	2.0	1.9	2.0
PPOP	2.3	2.2	2.5	2.2	2.3	2.1	2.1	1.6	2.1
Provisioning Cost	1.1	1.6	1.4	1.6	1.1	1.0	1.4	0.6	0.6
РВТ	1.1	0.7	1.1	0.6	1.2	1.2	0.7	1.0	1.5
Тах	0.3	0.2	1.5	0.2	0.3	0.3	0.0	0.2	0.4
ROA	0.7	0.4	-0.4	0.4	0.7	0.7	0.6	0.7	1.0
Leverage (x)	15.8	15.8	15.4	14.6	14.4	14.5	14.7	14.7	14.5
ROE	11.0	5.8	-5.5	6.2	10.5	10.8	8.4	10.0	14.7

Source: Company, Emkay Research

Key Financials (Standalone)

Income Statement

Y/E Mar (Rs mn)	FY21	FY22	FY23E	FY24E	FY25E
Net interest income	288,091	326,213	393,173	467,777	540,488
Other income	129,340	114,840	80,368	92,540	99,770
Fee income	25,209	27,710	30,758	35,064	41,375
Net income	417,430	441,053	473,541	560,318	640,258
Operating expenses	205,437	217,164	242,221	274,165	310,242
Pre provision profit	211,994	223,888	231,320	286,152	330,016
PPP excl treasury	172,539	206,154	220,405	275,783	318,091
Provisions	156,433	130,024	76,707	88,893	97,169
Profit before tax	55,560	93,864	154,613	197,260	232,846
Тах	47,271	21,142	37,107	49,709	58,677
Tax rate	85	23	24	25	25
Profit after tax	8,290	72,723	117,506	147,550	174,169

Balance Sheet

Y/E Year End (Rs mn)	FY21	FY22	FY23E	FY24E	FY25E
Equity	10,355	10,355	10,355	10,355	10,355
Reserves	760,102	848,742	950,715	1,080,661	1,234,119
Net worth	770,457	859,097	961,070	1,091,016	1,244,474
Deposits	9,669,968	10,459,386	11,768,030	13,509,318	15,807,669
Borrowings	444,344	810,618	1,013,272	1,093,936	1,147,133
Total liabilities	11,553,646	12,779,998	14,641,431	16,864,521	19,583,145
Cash and bank	388,410	551,844	569,864	620,886	812,300
Investments	2,612,201	3,157,954	3,514,079	3,925,204	4,446,724
Loans	7,063,005	7,771,552	9,160,753	10,813,811	12,715,588
Others	594,149	524,724	578,156	638,058	707,039
Total assets	11,553,646	12,779,998	14,641,431	16,834,521	19,553,145

Key Ratios (%)

Y/E Year End	FY21	FY22	FY23E	FY24E	FY25E
NIM	2.7	2.9	3.0	3.1	3.1
Non-II/avg assets	1.1	0.9	0.6	0.6	0.5
Fee income/avg assets	0.2	0.2	0.2	0.2	0.2
Opex/avg assets	1.8	1.8	1.8	1.7	1.7
Provisions/avg assets	1.4	1.1	0.6	0.6	0.5
PBT/avg assets	0.5	0.8	1.1	1.3	1.3
Tax/avg assets	0.4	0.2	0.3	0.3	0.3
RoA	0.1	0.6	0.9	0.9	1.0
RoAE	1.1	8.9	12.9	14.4	14.9
GNPA (%)	8.9	6.6	4.6	3.6	3.0
NNPA (%)	3.1	1.7	1.2	1.0	0.9
Per Share Data (Rs)	FY21	FY22	FY23E	FY24E	FY25E
EPS	1.7	14.0	22.7	28.5	33.6
BVPS	148.8	165.9	185.6	210.7	240.4
ABVPS	117.4	146.6	169.9	194.6	223.5
DPS	0.0	2.9	3.0	3.4	4.0
Valuations (x)	FY21	FY22	FY23E	FY24E	FY25E
PER	85.5	10.3	6.4	5.1	4.3
P/BV	1.2	1.0	0.9	0.7	0.6
P/ABV	1.2	1.0	0.9	0.7	0.6
P/PPOP	3.5	3.3	3.2	2.6	2.3
Dividend Yield (%)	0.0	2.0	2.1	2.4	2.8

This report is intended for team.emkay@whitemarquesolutions.com use and downloaded at 11/07/2022 12:46 PM

Growth (%)	FY21	FY22	FY23E	FY24E	FY25E
NII	4.9	13.2	20.5	19.0	15.5
PPOP	7.7	5.6	3.3	23.7	15.3
PAT	51.6	777.2	61.6	25.6	18.0
Loans	2.3	10.0	17.9	18.0	17.6

Quarterly (Rs mn)	Q2FY22	Q3FY22	Q4FY22	Q1FY23	Q2FY23
NII	75,659	85,520	86,117	88,384	101,745
NIM (%)	2.9	3.1	3.1	3.0	3.3
PPOP	56,695	54,833	56,351	45,275	60,310
PAT	20,878	21,970	17,788	21,681	33,134
EPS (Rs)	4.03	4.24	3.44	4.19	6.40
Source: Company, Emkay Research					
Shareholding Pattern (%)	Sep-21	Dec-21	Mar-22	Jun-22	Sep-22
Promoters	64.0	64.0	64.0	64.0	64.0
FIIs	7.8	7.4	9.1	8.2	8.9
DIIs	14.7	14.7	15.1	16.9	18.9
Public and Others	13.5	14.0	11.8	11.0	8.2
Source: Capitaline					

This report is intended for team.emkay@whitemarquesolutions.com use and downloaded at 11/07/2022 12:46 PM

RECOMMENDATION HISTORY (Rs/share)

Date	Closing Price	TP	Period	Rating	Analyst
1-Aug-22	116	140	12m	Buy	Anand Dama
15-May-22	95	130	12m	Buy	Anand Dama
8-Feb-22	118	145	12m	Buy	Anand Dama
11-Nov-21	101	130	12m	Buy	Anand Dama
8-Aug-21	83	122	12m	Buy	Anand Dama
31-May-21	81	110	12m	Buy	Anand Dama
28-May-21	84	85	12m	Buy	Anand Dama
28-Jan-21	67	85	12m	Buy	Anand Dama
20-Jan-21	79	85	12m	Buy	Anand Dama
29-Oct-20	43	55	12m	Buy	Anand Dama
11-Aug-20	47	55	12m	Hold	Anand Dama
25-Jun-20	52	58	12m	Hold	Anand Dama
11-Apr-20	51	62	12m	Hold	Anand Dama
27-Jan-20	92	95	12m	Hold	Anand Dama
9-Nov-19	94	100	12m	Hold	Anand Dama

Source: Company, Emkay Research

RECOMMENDATION HISTORY (Rs/share)



Source: Bloomberg, Company, Emkay Research

This report is intended for team.emkay@whitemarquesolutions.com use and downloaded at 11/07/2022 12:46 PM

Emkay Alpha Portfolio – BFSI-Banks

EAP sector portfolio



Analyst: Anand Dama

Contact Details

anand.dama@emkayglobal.com

+91 22 6624 2480 Sector

0000

Banks

Analyst bio Anand Dama is a CA, CPM (ICFAI) with total 13 years of research experience, in addition to 3 years in the finance/rating industry. His team currently covers 21 banks and 15 stocks in the NBFC/Insurance space.

Company Name	BSE200 Weight	EAP Weight	OW/UW (%)	OW/UW (bps)	EAP Weight based on Current NAV	Change vs last
BFSI-Banks	20.87	20.82	-0.2%	-4	100.00	
Axis Bank	2.22	2.34	5%	12	11.21	0
AU Small Finance Bank	0.27	0.25	-7%	-2	1.20	
Bandhan Bank	0.16	0.17	1%	0	0.79	0
Bank of Baroda	0.26	0.24	-6%	-2	1.15	0
Canara Bank	0.18	0.23	27%	5	1.12	0
City Union Bank	0.00	0.00	NA	0	0.00	0
DCB Bank	0.00	0.00	NA	0	0.00	0
Equitas Small Finance Bank	0.00	0.04	NA	4	0.20	0
Federal Bank	0.25	0.25	0%	0	1.22	0
HDFC Bank	6.16	6.21	1%	5	29.75	0
ICICI Bank	5.88	6.03	3%	15	28.90	0
Indian Bank	0.00	0.00	NA	0	0.00	0
Indusind Bank	0.70	0.82	18%	12	3.92	0
Karur Vysya Bank	0.00	0.10	NA	10	0.47	0
Kotak Mahindra Bank	2.53	2.00	-21%	-52	9.60	0
Punjab National Bank	0.11	0.00	-100%	-11	0.00	0
RBL Bank	0.00	0.00	NA	0	0.00	0
State Bank of India	2.04	2.04	0%	0	9.78	0
Ujjivan Small Finance Bank	0.00	0.00	NA	0	0.00	0
Union Bank of India	0.06	0.06	0%	0	0.28	0
Yes Bank	0.05	0.05	1%	0	0.22	0
Cash	0.00	0.04	NA	4	0.21	0

Source: Emkay Research

High Conviction/Strong Over Weight High Conviction/Strong Under Weight

Sector portfolio NAV

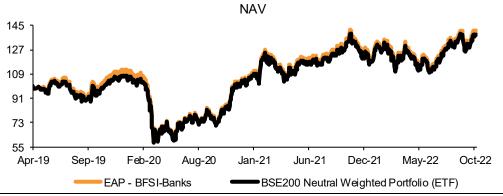
	Base					Latest
	1-Apr-19	3-Nov-21	4-May-22	3-Aug-22	3-Oct-22	3-Nov-22
EAP - BFSI-Banks	100.0	134.8	120.5	130.0	129.9	141.2
BSE200 Neutral Weighted Portfolio (ETF)	100.0	132.1	118.2	127.5	127.2	138.2
*Performance measurement base date 1 st April 2019						

Source: Emkay Research

Price Performance (%)

	1m	3m	6m	12m
EAP - BFSI-Banks	8.8%	8.6%	17.3%	4.8%
BSE200 Neutral Weighted Portfolio (ETF)	8.7%	8.4%	17.0%	4.7%
Source: Emkav Research				





Source: Emkay Research

Please see our model portfolio (Emkay Alpha Portfolio): <u>Nifty</u>

Please see our model portfolio (Emkay Alpha Portfolio): SMID

"Emkay Alpha Portfolio – SMID and Nifty are a supporting document to the Emkay Alpha Portfolios Report and is updated on regular intervals" This report is intended for team.emkay@wnitenalquesolutions.com use and downioeded at 11/0/2022 12:46 PM

Emkay Rating Distribution

Ratings	Expected Return within the next 12-18 months.
BUY	Over 15%
HOLD	Between -5% to 15%
SELL	Below -5%

Completed Date: 06 Nov 2022 17:09:16 (SGT) Dissemination Date: 06 Nov 2022 17:10:16 (SGT)

Sources for all charts and tables are Emkay Research unless otherwise specified.

GENERAL DISCLOSURE/DISCLAIMER BY EMKAY GLOBAL FINANCIAL SERVICES LIMITED (EGFSL):

Emkay Global Financial Services Limited (CIN-L67120MH1995PLC084899) and its affiliates are a full-service, brokerage, investment banking, investment management and financing group. Emkay Global Financial Services Limited (EGFSL) along with its affiliates are participants in virtually all securities trading markets in India. EGFSL was established in 1995 and is one of India's leading brokerage and distribution house. EGFSL is a corporate trading member of Bombay Stock Exchange Limited (BSE), National Stock Exchange of India Limited (NSE), MCX Stock Exchange Limited (MCX-SX). EGFSL along with its subsidiaries offers the most comprehensive avenues for investments and is engaged in the businesses including stock broking (Institutional and retail), merchant banking, commodity broking, depository participant, portfolio management, insurance broking and services rendered in connection with distribution of primary market issues and financial products like mutual funds, fixed deposits. Details of associates are available on our website i.e. www.emkayglobal.com

EGFSL is registered as Research Analyst with SEBI bearing registration Number INH000000354 as per SEBI (Research Analysts) Regulations, 2014. EGFSL hereby declares that it has not defaulted with any stock exchange nor its activities were suspended by any stock exchange with whom it is registered in last five years, except that NSE had disabled EGFSL from trading on October 05, October 08 and October 09, 2012 for a manifest error resulting into a bonafide erroneous trade on October 05, 2012. However, SEBI and Stock Exchanges have conducted the routine inspection and based on their observations have issued advice letters or levied minor penalty on EGFSL for certain operational deviations in ordinary/routine course of business. EGFSL has not been debarred from doing business by any Stock Exchange / SEBI or any other authorities; nor has its certificate of registration been cancelled by SEBI at any point of time.

EGFSL offers research services to clients as well as prospects. The analyst for this report certifies that all of the views expressed in this report accurately reflect his or her personal views about the subject company or companies and its or their securities, and no part of his or her compensation was, is or will be, directly or indirectly related to specific recommendations or views expressed in this report.

Other disclosures by Emkay Global Financial Services Limited (Research Entity) and its Research Analyst under SEBI (Research Analyst) Regulations, 2014 with reference to the subject company(s) covered in this report

EGFSL and/or its affiliates may seek investment banking or other business from the company or companies that are the subject of this material. Emkay may have issued or may issue other reports that are inconsistent with and reach different conclusion from the information, recommendations or information presented in this report or are contrary to those contained in this report. Emkay Investors may visit www.emkayglobal.com to view all Research Reports. The views and opinions expressed in this document may or may not match or may be contrary with the views, estimates, rating, and target price of the research published by any other analyst or by associate entities of Emkay; our proprietary trading, investment businesses or other associate entities may make investment decisions that are inconsistent with the recommendations expressed herein. In reviewing these materials, you should be aware that any or all of the foregoing, among other things, may give rise to real or potential conflicts of interest including but not limited to those stated herein. Additionally, other important information regarding our relationships with the company or companies that are the subject of this material is provided herein. This report is not directed to, or intended for distribution to or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction where such distribution, publication, availability or use would be contrary to law or regulation or which would subject EGFSL or its group companies to any registration or licensing requirement within such jurisdiction. Specifically, this document does not constitute an offer to or solicitation to any U.S. person for the purchase or sale of any financial instrument or as an official confirmation of any transaction to any U.S. person. Unless otherwise stated, this message should not be construed as official confirmation of any transaction. No part of this document may be distributed in Canada or used by private customers in United Kingdom. All material presented in this report, unless specifically indicated otherwise, is under copyright to Emkay. None of the material, nor its content, nor any copy of it, may be altered in any way, transmitted to, copied or distributed to any other party, without the prior express written permission of EGFSL . All trademarks, service marks and logos used in this report are trademarks or registered trademarks of EGFSL or its Group Companies. The information contained herein is not intended for publication or distribution or circulation in any manner whatsoever and any unauthorized reading, dissemination, distribution or copying of this communication is prohibited unless otherwise expressly authorized. Please ensure that you have read "Risk Disclosure Document for Capital Market and Derivatives Segments" as prescribed by Securities and Exchange Board of India before investing in Indian Securities Market. In so far as this report includes current or historic information, it is believed to be reliable, although its accuracy and completeness cannot be guaranteed.

• This publication has not been reviewed or authorized by any regulatory authority. There is no planned schedule or frequency for updating research publication relating to any issuer.

• Please contact the primary analyst for valuation methodologies and assumptions associated with the covered companies or price targets

Disclaimer for U.S. persons only: This research report is a product of Emkay Global Financial Services Limited (Emkay), which is the employer of the research analyst(s) who has prepared the research report. The research analyst(s) preparing the research report is/are resident outside the United States (U.S.) and are not associated persons of any U.S. regulated broker-dealer and therefore the analyst(s) is/are not subject to supervision by a U.S. broker-dealer, and is/are not required to satisfy the regulatory licensing requirements of Financial Institutions Regulatory Authority (FINRA) or required to otherwise comply with U.S. rules or regulations regarding, among other things, communications with a subject company, public appearances and trading securities held by a research analyst account. This report is intended for distribution to "Major Institutional Investors" as defined by Rule 15a-6(b)(4) of the U.S. Securities and Exchange Act, 1934 (the Exchange Act) and interpretations thereof by U.S. Securities and Exchange Commission (SEC) in reliance on Rule 15a 6(a)(2). If the recipient of this report is not a Major Institutional Investor as specified above, then it should not act upon this report and return the same to the sender. Further, this report may not be copied, duplicated and/or transmitted onward to any U.S. person, which is not the Major Institutional Investors. In reliance on the exemption from registration provided by Rule 15a-6 of the Exchange Act and interpretations thereof by the SEC in order to conduct certain business with Major Institutional Investors.

This report is intended for team.emkay@whitemarquesolutions.com use and downloaded at 11/07/2022 12:46 PM

ANALYST CERTIFICATION BY EMKAY GLOBAL FINANCIAL SERVICES LIMITED (EGFSL)

The research analyst(s) primarily responsible for the content of this research report, in part or in whole, certifies that the views about the companies and their securities expressed in this report accurately reflect his/her personal views. The analyst(s) also certifies that no part of his/her compensation was, is, or will be, directly or indirectly, related to specific recommendations or views expressed in the report. The research analyst (s) primarily responsible of the content of this research report, in part or in whole, certifies that he or his associate¹ does not serve as an officer, director or employee of the issuer or the new listing applicant (which includes in the case of a real estate investment trust, an officer of the management company of the real estate investment trust; and in the case of any other entity, an officer or its equivalent counterparty of the entity who is responsible for the management of the issuer or the new listing applicant). The research analyst(s) primarily responsible for the content of this research report or his associate does not have financial interests² in relation to an issuer or a new listing applicant that the analyst reviews. EGFSL has procedures in place to eliminate, avoid and manage any potential part of a separate and independent team to the investment banking function of the EGFSL and procedures are in place to ensure that confidential information held by either the research or investment banking function is handled appropriately. There is no direct link of EGFSL compensation to any specific investment banking function of the EGFSL.

¹ An associate is defined as (i) the spouse, or any minor child (natural or adopted) or minor step-child, of the analyst; (ii) the trustee of a trust of which the analyst, his spouse, minor child (natural or adopted) or minor step-child, is a beneficiary or discretionary object; or (iii) another person accustomed or obliged to act in accordance with the directions or instructions of the analyst.

² Financial interest is defined as interest that are commonly known financial interest, such as investment in the securities in respect of an issuer or a new listing applicant, or financial accommodation arrangement between the issuer or the new listing applicant and the firm or analysis. This term does not include commercial lending conducted at the arm's length, or investments in any collective investment scheme other than an issuer or new listing applicant notwithstanding the fact that the scheme has investments in securities in respect of an issuer or a new listing applicant.

COMPANY-SPECIFIC / REGULATORY DISCLOSURES BY EMKAY GLOBAL FINANCIAL SERVICES LIMITED (EGFSL):

Disclosures by Emkay Global Financial Services Limited (Research Entity) and its Research Analyst under SEBI (Research Analyst) Regulations, 2014 with reference to the subject company(s) covered in this report-:

- 1. EGFSL, its subsidiaries and/or other affiliates do not have a proprietary position in the securities recommended in this report as of November 6, 2022
- 2. EGFSL, and/or Research Analyst does not market make in equity securities of the issuer(s) or company(ies) mentioned in this Research Report Disclosure of previous investment recommendation produced:
- EGFSL may have published other investment recommendations in respect of the same securities / instruments recommended in this research report during the preceding 12 months. Please contact the primary analyst listed in the first page of this report to view previous investment recommendations published by EGFSL in the preceding 12 months.
- 4. EGFSL, its subsidiaries and/or other affiliates and Research Analyst or his/her relative's does not have any material conflict of interest in the securities recommended in this report as of November 6, 2022.
- 5. EGFSL, its subsidiaries and/or other affiliates and Research Analyst or his/her relative's does not have actual/beneficial ownership of 1% or more securities of the subject company at the end of the month immediately preceding the November 6, 2022
- 6. EGFSL, its subsidiaries and/or other affiliates and Research Analyst have not received any compensation in whatever form including compensation for investment banking or merchant banking or brokerage services or for products or services other than investment banking or merchant banking or brokerage services from securities recommended in this report (subject company) in the past 12 months.
- 7. EGFSL, its subsidiaries and/or other affiliates and/or and Research Analyst have not received any compensation or other benefits from securities recommended in this report (subject company) or third party in connection with the research report.
- 8. Securities recommended in this report (Subject Company) has not been client of EGFSL, its subsidiaries and/or other affiliates and/or and Research Analyst during twelve months preceding the November 6, 2022

This report is intended for team.emkay@whitemarquesolutions.com use and downloaded at 11/07/2022 12:46 PM

RESTRICTIONS ON I	
General	This report is not directed to, or intended for distribution to or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction where such distribution, publication, availability or use would be contrary to law or regulation.
Australia	This report is not for distribution into Australia.
Hong Kong	This report is not for distribution into Hong Kong.
Indonesia	This report is being distributed in Indonesia by PT DBS Vickers Sekuritas Indonesia.
Malaysia	This report is not for distribution into Malaysia.
Singapore	This report is distributed in Singapore by DBS Bank Ltd (Company Regn. No. 16800306E) or DBSVS (Company Regn. No. 1860024G) both of which are Exempt Financial Advisers as defined in the Financial Advisers Act and regulated by the Monetary Authority of Singapore. DBS Bank Ltd and/or DBSVS, may distribute reports produced by its respective foreign entities, affiliates or other foreign research houses pursuant to an agreement under Regulation 32C of the financial Advisers Regulations. Singapore recipients should contact DBS Bank Ltd at 6327 2288 for matters arising from, or in connection with the report.
Thailand	This report is being distributed in Thailand by DBS Vickers Securities (Thailand) Co Ltd.
United Kingdom	This report is disseminated in the United Kingdom by DBS Vickers Securities (UK) Ltd, ("DBSVUK"). DBSVUK is authorised and regulated by the Financial Conduct Authority in the United Kingdom. In respect of the United Kingdom, this report is solely intended for the clients of DBSVUK, its respective connected and associated corporations and affiliates only and no part of this document may be (i) copied, photocopied or duplicated in any form or by any means or (ii) redistributed without the prior written consent of DBSVUK. This communication is directed at persons having professional experience in matters relating to investments. Any investment activity following from this communication will only be engaged in with such persons. Persons who do not have professional experience in matters relating to investments should not rely on this communication.
Dubai International Financial Centre	This research report is being distributed by DBS Bank Ltd., (DIFC Branch) having its office at units 608-610, 6 th Floor, Gate Precinct Building 5, PO Box 506538, Dubai International Financial Centre (DIFC), Dubai, United Arab Emirates. DBS Bank Ltd., (DIFC Branch) is regulated by The Dubai Financial Services Authority. This research report is intended only for professional clients (as defined in the DFSA rulebook) and no other person may act upon it.
United Arab Emirates	This report is provided by DBS Bank Ltd (Company Regn. No. 196800306E) which is an Exempt Financial Adviser as defined in the Financial Advisers Act and regulated by the Monetary Authority of Singapore. This report is for information purposes only and should not be relied upon or acted on by the recipient or considered as a solicitation or inducement to buy or sell any financial product. It does not constitute a personal recommendation or take into account the particular investment objectives, financial situation, or needs of individual clients. You should contact your relationship manager or investment adviser if you need advice on the merits of buying, selling or holding a particular investment. You should note that the information in this report may be out of date and it is not represented or warranted to be accurate, timely or complete. This report or any portion thereof may not be reprinted, sold or redistributed without our written consent.
United States	DBSVUSA did not participate in its preparation. The research analyst(s) named on this report are not registered as research analysts with FINRA and are not associated persons of DBSVUSA. The research analyst(s) are not subject to FINRA Rule 2241 restrictions on analyst compensation, communications with a subject company, public appearances and trading securities held by a research analyst. This report is being distributed in the United States by DBSVUSA, which accepts responsibility for its contents. This report may only be distributed to Major U.S. Institutional Investors (as defined in SEC Rule 15a-6) and to such other institutional investors and qualified persons as DBSVUSA may authorize. Any U.S. person receiving this report who wishes to effect transactions in any securities referred to herein should contact DBSVUSA directly and not its affiliate.
Other jurisdictions	In any other jurisdictions, except if otherwise restricted by laws or regulations, this report is intended only for qualified, professional, institutional or sophisticated investors as defined in the laws and regulations of such jurisdictions.

Emkay Global Financial Services Ltd. CIN - L67120MH1995PLC084899

7th Floor, The Ruby, Senapati Bapat Marg, Dadar - West, Mumbai - 400028. India Tel: +91 22 66121212 Fax: +91 22 66121299 Web: www.emkayglobal.com

This report is intended for team.emkay@whitemarquesolutions.com use and downloaded at 11/07/2022 12:46 PM