

Woodside Energy Group

2023 in-line, Scarborough on track as all EPs received, 2024 guidance a touch light

Reiterate Rating: BUY | PO: 34.00 AUD | Price: 31.09 AUD

2023 production in-line, 2024 guidance a touch light

Woodside (WDS) reported 2023 production of 187.2MMboe, at the upper end of the 183-188 MMboe guidance range and in-line with consensus and BofAe 187. Revenue of \$14bn for 2023 was also in-line with consensus of \$14.1bn (BofAe \$14.2bn). WDS has guided to 2024 production of 185-195 MMboe (+1% vs 2023), 4% below consensus of 198 MMboe (BofA 199 MMboe). The weaker production guidance appears due to softer growth in crude and condensate volumes in the US GoM. We reduce our FY24e production forecast to 193 MMboe as we trim expectations from Mad Dog and NWS due to natural field decline and highlight a potential shutdown of one of the NWS LNG trains in 2H24. Capex guidance of \$5.0-5.5bn for 2023 is in line with expectations. Reflecting the 2023 update and 2024 guidance, our EBITDA is reduced by 1% in FY23e and FY24e.

Scarborough progressing well as all EPs now received

Moving to WDS' major projects, all four offshore Environmental Plans have been received for the Scarborough gas project and the project is processing well with 55% completion. WDS has completed the seismic survey, nearshore pipelay installation is almost complete and pipelay work has commenced in Commonwealth waters while the first production well was spudded early January. We view the approval of the four EPs and the progress at Scarborough as positive. WDS' other key growth project - Sangomar in Senegal - is now 94% complete (vs 90% in Sep-23) and the FPSO is in transit from Singapore. 17 of 23 wells have been drilled and first oil is on track for mid CY24.

Reiterate Buy and \$34.00/share PO = 16% return potential

We reiterate our Buy on Woodside with an unchanged price objective of \$34.00/share, implying 16% return potential. We are attracted to WDS' low cost and diversified asset portfolio and strong balance sheet. Potentially acquiring Santos for value (i.e. <\$8.00/sh) could be a positive catalyst with the key attraction being STO's interest in PNG LNG and estimated merger synergies of \$250m p.a (BofAe). WDS will report FY23 results on 27 February. We forecast underlying EBITDA of \$9.5bn (vs consensus of \$9.3bn) and a FY23 dividend of 138 UScps (vs consensus of 130 UScps), based on an 80% payout.

Estimates (Dec) (US\$)	2021A	2022A	2023E	2024E	2025E
Net Profit b/f Abnormals	1,620	5,080	3,294	2,800	2,989
EPS	1.67	3.33	1.72	1.46	1.56
EPS Change (YoY)	254.8%	99.9%	-48.3%	-15.0%	6.8%
Dividend / Share	1.35	3.17	1.38	1.17	1.25
Free Cash Flow / Share	1.43	3.72	0.450	0.858	2.20
Valuation (Dec)					
P/E	13.56x	6.33x	12.31x	13.93x	13.05x
Dividend Yield	5.95%	15.04%	6.50%	5.74%	6.13%
EV / EBITDA*	6.85x	3.59x	5.37x	5.09x	4.48x
Free Cash Flow Yield*	3.58%	14.64%	2.22%	4.23%	10.83%

* For full definitions of *IQmethod*SM measures, see page 8.

>> Employed by a non-US affiliate of BofAS and is not registered/qualified as a research analyst under the FINRA rules.

Refer to "Other Important Disclosures" for information on certain BofA Securities entities that take responsibility for the information herein in particular jurisdictions.

BofA Securities does and seeks to do business with issuers covered in its research reports. As a result, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision.

Refer to important disclosures on page 9 to 11. Analyst Certification on page 7. Price Objective Basis/Risk on page 7.

12649880

Timestamp: 24 January 2024 12:47AM EST

24 January 2024

Equity

Key Changes

(US\$)	Previous	Current
2023E EPS	1.78	1.72
2024E EPS	1.47	1.46
2025E EPS	1.53	1.56
2023E EBITDA (m)	9,687.7	9,568.6
2024E EBITDA (m)	9,746.7	9,650.9
2025E EBITDA (m)	10,491.0	10,582.2

James Redfern >>
Research Analyst
Merrill Lynch (Australia)
+61 2 9226 5746
james.redfern@bofa.com

Cameron Taylor >>
Research Analyst
Merrill Lynch (Australia)
+61 2 9226 5043
cameronjohn.taylor@bofa.com

Matt Chalmers, CFA >>
Research Analyst
Merrill Lynch (Australia)
+61 2 9226 5634
matt.chalmers2@bofa.com

Chen Jiang >>
Research Analyst
Merrill Lynch (Australia)
+61 2 9226 5771
chen_jiang@bofa.com

Meredith Schwarz >>
Research Analyst
Merrill Lynch (Australia)
+61 3 9659 2067
meredith.schwarz@bofa.com

Jonathan Mannes >>
Research Analyst
Merrill Lynch (Australia)
+61 2 9226 5785
jonathan.mannes@bofa.com

Stock Data

Price	31.09 AUD
Price Objective	34.00 AUD
Date Established	11-Jan-2024
Investment Opinion	B-1-7
52-Week Range	28.76 AUD-39.03 AUD
Mrkt Val / Shares Out (mn)	38,752 USD / 1,898.7
Market Value (mn)	59,032 AUD
Average Daily Value (mn)	109.28 USD
Free Float	100.0%
BofA Ticker / Exchange	WOPEF / ASX
Bloomberg / Reuters	WDS AU / WDS.AX
ROE (2023E)	9.1%
Net Dbt to Eqty (Dec-2022A)	-2.9%

iQprofileSM Woodside Energy Group

Key Income Statement Data (Dec)	2021A	2022A	2023E	2024E	2025E
(US\$ Millions)					
Sales	6,778	16,615	14,056	13,800	14,773
Associates & Other Revenue	184	202	193	195	195
Operating Expenses	(2,840)	(5,583)	(4,680)	(4,343)	(4,387)
EBITDA	4,122	11,234	9,569	9,651	10,582
Depreciation & Amortization	(1,687)	(2,948)	(4,233)	(4,690)	(5,425)
EBIT	2,435	8,286	5,336	4,961	5,158
Net Interest & Other income	(203)	(12)	16	(40)	23
Pretax Income	2,232	8,274	5,352	4,921	5,181
Tax (expense) / Benefit	(1,254)	(2,599)	(2,049)	(1,976)	(2,054)
Outside Equity interest in Npat	642	(595)	(9)	(145)	(137)
Preference dividends	NA	NA	NA	NA	NA
Net Profit b/f Abnormals	1,620	5,080	3,294	2,800	2,989
Non-Recurring Items	363	1,268	(156)	0	0
Net Income (Reported)	1,983	6,348	3,138	2,800	2,989

Key Cash Flow Statement Data	2021A	2022A	2023E	2024E	2025E
EBITDA	4,122	11,234	9,569	9,651	10,582
Change in Working Capital	(212)	(900)	(277)	(826)	(491)
Other Cflow Items before int & tax	6	19	6	0	0
Net Interest Paid	11	108	291	317	473
Tax Paid	(271)	(1,218)	(2,970)	(1,476)	(1,554)
Other Cflow from Operations	136	(432)	(136)	(857)	(950)
Cash Flow from Operations	3,792	8,811	6,483	6,809	8,060
Capital Expenditure (PP&E)	(2,406)	(3,136)	(5,623)	(5,169)	(3,863)
(Acquisition) / Disposal of Investments	(544)	(343)	0	0	0
Other Cflow from Investing	9	1,214	(172)	530	(350)
Cash Flow from Investing	(2,941)	(2,265)	(5,795)	(4,639)	(4,213)
Shares Issue / (Repurchase)	0	(144)	0	0	0
Dividend paid	(289)	(2,558)	(3,857)	(2,240)	(2,391)
Other Cflow from Financing	(1,135)	(662)	517	2,328	2,000
Cash Flow from Financing	(1,424)	(3,364)	(3,340)	88	(391)
Free Cash Flow	1,386	5,675	860	1,639	4,197
Net Debt	2,405	(1,063)	2,365	2,435	979

Key Balance Sheet Data	2021A	2022A	2023E	2024E	2025E
Cash Equivalents	3,025	6,201	3,524	5,782	9,238
Receivables & Inventories	1,275	3,112	2,579	2,638	2,778
Property, Plant & Equipment	215	265	258	258	258
Intangibles	0	0	0	0	0
Other assets	21,959	49,743	51,139	51,089	49,877
Total Assets	26,474	59,321	57,500	59,767	62,151
Payables	639	2,130	1,994	2,128	2,177
Provisions	3,510	10,271	8,307	7,407	7,007
Short term debt & Long term debt	5,430	5,138	5,889	8,217	10,217
Other Liabilities	2,666	4,655	4,276	4,276	4,276
Total Liabilities	12,245	22,194	20,466	22,028	23,677
Total Equity	14,229	37,127	37,034	37,739	38,474

iQmethod SM - Bus Performance*	2021A	2022A	2023E	2024E	2025E
Return on Capital Employed	5.2%	15.0%	6.6%	5.9%	6.1%
Return on Equity	12.7%	20.4%	9.1%	7.7%	8.1%
Operating Margin	35.9%	49.9%	38.0%	36.0%	34.9%
EBITDA Margin	59.2%	66.8%	67.2%	69.0%	70.7%

iQmethod SM - Quality of Earnings*	2021A	2022A	2023E	2024E	2025E
Cash Realization Ratio	2.3x	1.7x	2.0x	2.4x	2.7x
Dividend Payout Ratio	80.7%	95.2%	80.0%	80.0%	80.0%
Tax Rate (Reported)	56.2%	31.4%	38.3%	40.2%	39.7%
Net Debt-to-Equity Ratio	16.9%	-2.9%	6.4%	6.5%	2.5%
Interest Cover	10.6x	49.6x	18.9x	13.9x	11.5x

Key Metrics	2021A	2022A	2023E	2024E	2025E
Franking	100%	100%	100%	100%	100%

* For full definitions of iQmethodSM measures, see page 8.

Company Sector

Oil & Gas Producers

Company Description

Woodside is Australia's largest oil & gas company with annual production of c.200 mmboe and is also a top 10 global E&P and supplier of LNG. Woodside's asset portfolio mainly comprises large, low cost, long life LNG assets in Australia and high margin oil production in the US Gulf of Mexico.

Investment Rationale

We rate Woodside as a Buy with the shares below our risked NAV and offering an attractive dividend yield. Woodside benefits from a diversified portfolio of assets comprising LNG focused operations in Australia and deepwater oil assets in the US Gulf of Mexico, low operating costs, a strong balance sheet and attractive growth projects including Scarborough/Pluto Train 2 and Trion.

Stock Data

Price to Book Value

1.1x

4Q23/FY23 highlights

Exhibit 1: FY23 production results summary

FY23 production, sales and revenue were in-line with consensus estimates.

		FY22a	FY23a	YoY	BofAe	vs. BofAe	Cons	vs. Cons
Production	MMboe	157.7	187.2	19%	186.7	0%	187.8	0%
Sales	MMboe	168.9	201.5	19%	202.9	-1%	202.5	0%
Revenue	\$m	16,851	14,028	-17%	14,191	-1%	14,082	0%

Source: BofA Global Research estimates, Visible Alpha, Company report

BofA GLOBAL RESEARCH

Exhibit 2: 4Q-FY23 production results summary

4Q-FY23 production was in-line with consensus whilst sales and revenue were slightly affected by timing of oil and condensate liftings in Q4.

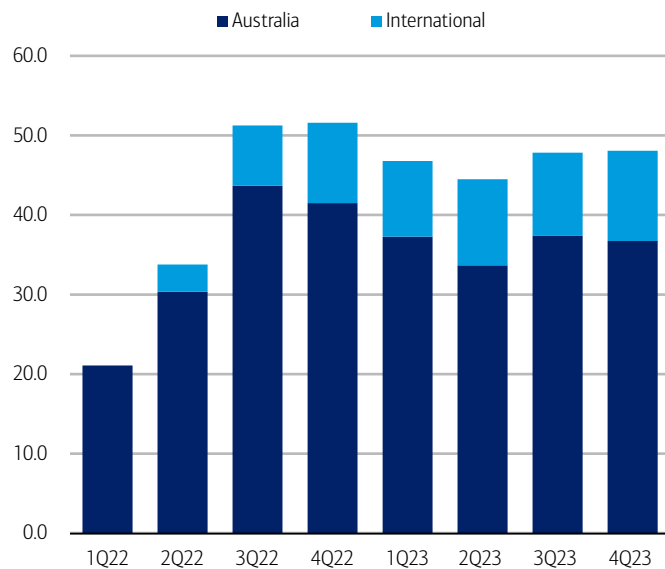
		4Q22	3Q23	4Q23	BofAe	vs. BofAe	QoQ	YoY	Cons	vs. Cons
Production	MMboe	51.6	47.8	48.1	47.6	1%	0%	-7%	47.8	1%
Sales	MMboe	52.2	53.3	49.5	50.8	-3%	-7%	-5%	49.8	-1%
Revenue	\$m	5,160	3,259	3,355	3,521	-5%	3%	-35%	3,587	-6%
Production summary		4Q22	3Q23	4Q23	BofAe	vs. BofAe	QoQ	YoY	Cons	vs. Cons
Australia										
LNG	MMboe	24.3	21.5	22.7	23.5	-3%	6%	-6%	22.2	2%
North West Shelf	MMboe	9.6	6.6	7.8	9.1	-14%	18%	-	8.0	-3%
Pluto	MMboe	12.1	12.3	12.4	12.5	0%	1%	-	11.7	6%
Wheatstone	MMboe	2.6	2.6	2.5	2.0	26%	-4%	-	2.5	0%
Total	MMboe	24.3	21.5	22.7	23.5	-3%	6%	-	22.2	2%
Pipeline gas	MMboe	8.4	8.1	6.6	4.4	52%	-18%	-20%	10.0	-33%
Crude oil and condensate	MMboe	7.3	6.1	6.0	6.4	-5%	-2%	-18%	5.8	4%
NGL	MMboe	1.5	1.7	1.4	1.2	15%	-20%	-12%	1.7	-21%
Total Australia	MMboe	41.5	37.4	36.7	35.4	4%	-2%	-11%	39.7	-7%
International										
Pipeline gas	MMboe	2.4	2.8	3.1	2.8	9%	11%	31%	2.8	12%
Crude oil and condensate	MMboe	7.4	7.3	7.9	9.0	-12%	8%	7%	8.5	-7%
NGL	MMboe	0.4	0.4	0.3	0.3	11%	-8%	-12%	0.3	7%
Total International	MMboe	10.1	10.4	11.3	12.2	-7%	8%	12%	8.1	40%
Total production	MMboe	51.6	47.8	48.1	47.6	1%	0%	-7%	47.8	1%
Revenue summary		4Q22	3Q23	4Q23	BofAe	vs. BofAe	QoQ	YoY	Cons	vs. Cons
Australia										
North West Shelf	\$m	1,260.0	575	509	692.8	-27%	-11%	-60%	na	-
Pluto	\$m	1,666.0	923	1,011	933.6	8%	10%	-39%	na	-
Wheatstone	\$m	383.0	246	208	164.8	26%	-15%	-46%	na	-
Bass Strait	\$m	363.0	379	225	276.1	-18%	-41%	-38%	na	-
Macedon	\$m	54.0	41	54	41.0	32%	32%	0%	na	-
Ngujima-Yin	\$m	164.0	64	128	202.7	-37%	100%	-	na	-
Okha	\$m	0.0	103	0	0.0	-	-100%	-	na	-
Pyrenees	\$m	118.0	0	94	0.0	-	-	-	na	-
International										
Atlantis	\$m	263.0	209	241	209.0	15%	15%	-8%	na	-
Mad Dog	\$m	87.0	170	178	170.0	5%	5%	105%	na	-
Shenzi	\$m	188.0	178	217	178.0	22%	22%	15%	na	-
Trinidad & Tobago	\$m	112.0	17	103	17.0	506%	506%	-8%	na	-
Other	\$m	6.0	5	4	5.0	-20%	-20%	-33%	na	-
Marketing (trading)	\$m	431.0	298	332	266.0	25%	11%	-23%	na	-
Total sales revenue	\$m	5,095	3,208	3,304	3,156	5%	3%	-35%	na	-
Processing revenue	\$m	48.0	50.0	49.0	45.8	7%	-2%	2%	na	-
Shipping and other revenue	\$m	17.0	1.0	2.0	1.0	100%	100%	-88%	na	-
Total revenue	\$m	5,160	3,259	3,355	3,203	5%	3%	-35%	3,587	-6%

Source: BofA Global Research estimates, Visible Alpha, Company report

BofA GLOBAL RESEARCH

Exhibit 3: Production by region (Mmboe)

Australia production fell slightly QoQ largely due to Bass Strait decline.

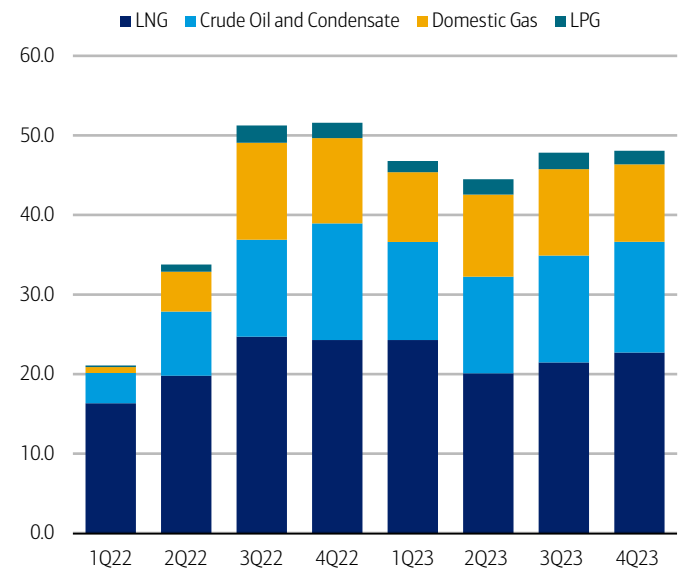


Source: BofA Global Research estimates, company report

BofA GLOBAL RESEARCH

Exhibit 4: Production by product type (Mmboe)

Production was largely flat QoQ due with high reliability at Pluto (99.9%)

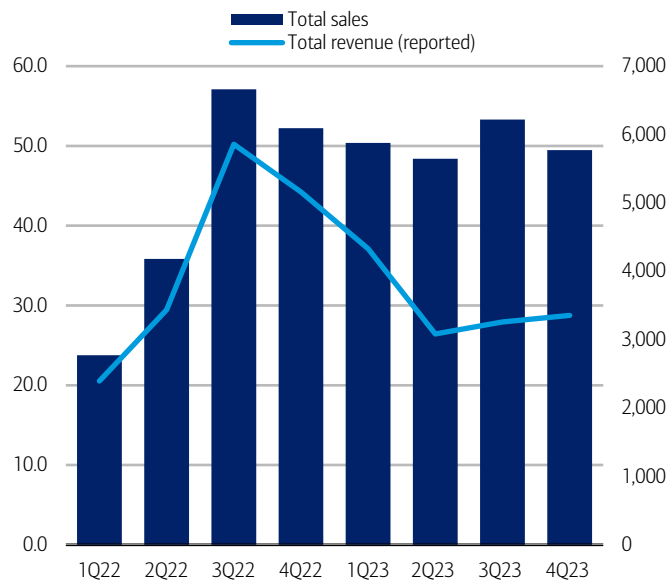


Source: BofA Global Research estimates, company report

BofA GLOBAL RESEARCH

Exhibit 5: Sales volumes (mmboe, LHS) vs. sales revenue (US\$m, RHS)

Sales volumes fell QoQ due to timing of oil and condensate liftings.

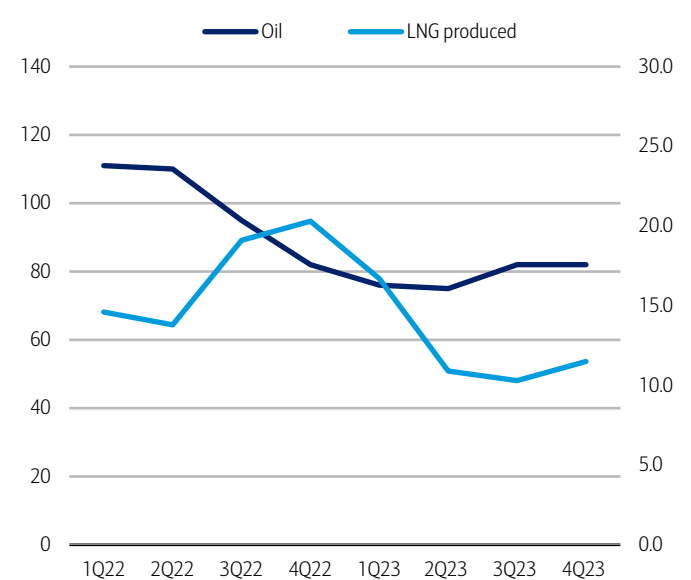


Source: BofA Global Research estimates, company report

BofA GLOBAL RESEARCH

Exhibit 6: Oil price (US\$/boe, LHS) & LNG price (US\$mmbtu, RHS)

Realised oil price of \$82/bbl was \$2/bbl lower than BofA estimates.



Source: BofA Global Research estimates, company report

BofA GLOBAL RESEARCH

2024 guidance a touch light

WDS provided softer than expected guidance for 2024 production and expects 185-195 MMboe vs consensus of 198 MMboe (BofA 199 MMboe). WDS appear light on crude and condensate volumes of 57MMboe, 12% lower than consensus and BofA estimates. We trim our expectations for Mad Dog production in 2024 and slightly lower NWS volumes following the shutdown of one of the NWS LNG trains.

Capital expenditure is expected to be between \$5-5.5bn as expected following information provided at the 2023 Investor Day. We expect capital expenditure to continue to decline through to 2027 as the spend for Sangomar, Scarborough and Pluto T2 rolls off.

Exhibit 7: FY24 guidance

Guidance for 2024 production was 4% lower to the midpoint than expected as consensus was looking for 198MMbboe.

		FY23a	FY24 Guidance	BofAe	% BofAe	VA Cons	% Cons
Production guidance							
LNG	MMboe	89.4	85.5	86.9	-2%	85.9	0%
Pipeline gas	MMboe	37.1	38	36.4	4%	40.4	-6%
Crude and condensate	MMboe	53.3	57	62.3	-9%	65.0	-12%
Natural gas liquids	MMboe	6.9	9.5	7.3	31%	6.9	38%
Total	MMboe	186.7	185-195	193	-2%	198	-4%
Capex splits							
Sangomar	%	20%	10%				
Scarborough and Pluto T2	%	50%	40%				
Gulf of Mexico	%	15%	15%				
Other growth	%	15%	35%				
Total capex		6201.3	5,000-5,500	5,169	2%	5,358	-2%
Gas hub exposure	%	21%	26-33%	25%			

Source: BofA Global Research estimates, company report, Visible Alpha

BofA GLOBAL RESEARCH

Valuation

Exhibit 8: NAV summary

Our sum of the parts DCF assumes a 9.5% WACC and US\$70/bbl Brent crude oil long term

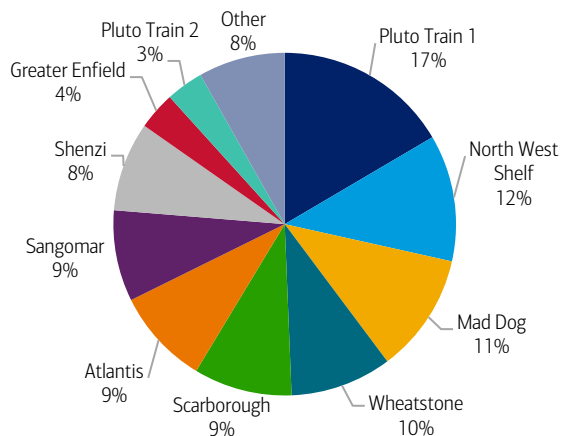
	WDS Interest %	Unrisked NAV A\$m	Risk Factor %	Riskd NAV A\$m	Unrisked NAV A\$/sh	Riskd NAV A\$/sh
Producing Assets						
Pluto Train 1	90.0%	11,094	100%	11,094	5.81	5.81
North West Shelf	33.4%	7,468	100%	7,468	3.91	3.91
Wheatstone	13.0%	7,761	100%	7,761	4.06	4.06
Mad Dog	23.9%	7,425	100%	7,425	3.89	3.89
Bass Strait	50.0%	2,296	100%	2,296	1.20	1.20
Atlantis	44.0%	5,800	100%	5,800	3.04	3.04
Shenzi	72.0%	5,121	100%	5,121	2.68	2.68
Greater Enfield	60.0%	1,984	100%	1,984	1.04	1.04
Macedon/Pyrenees	71.4%	1,253	100%	1,253	0.66	0.66
Trinidad/Tobago	45%/68.5%	781	100%	781	0.41	0.41
Producing NAV		50,983		50,983	26.68	26.68
Development projects (post-FID)						
Sangomar (Senegal)	82.0%	6,239	95%	5,927	3.27	3.10
Scarborough	90.0%	7,690	85%	6,537	4.02	3.42
Pluto Train 2	51.0%	2,916	85%	2,479	1.53	1.30
Trion	60.0%	1,563	75%	1,172	0.82	0.61
Development NAV		18,408		16,114	9.63	8.43
Total Asset valuation		69,391		67,097	36.3	35.12
Less corporate costs				(6,942)	(3.63)	(3.63)
Merger synergies				2,465	1.29	1.29
Total enterprise value		69,391		62,620	34.0	32.77
Franking Credits				5,728	3.02	3.02
Gross debt				9,346	4.89	4.89
Cash				5,118	2.68	2.68
Net Debt (30 June 2023)				4,228	2.21	2.21
Equity Value (A\$m)				64,121	34.80	33.60

Source: BofA Global Research estimates

BofA GLOBAL RESEARCH

Exhibit 9: NAV breakdown by key asset

WDS' largest assets by value are Pluto T1, NWS, Mad Dog and Wheatstone

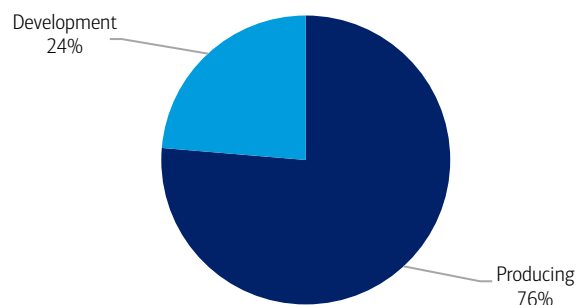


Source: BofA Global Research estimates

BofA GLOBAL RESEARCH

Exhibit 10: NAV breakdown by producing and development assets

Development projects include Sangomar, Scarb, Pluto T2 and Trion



Source: BofA Global Research estimates

BofA GLOBAL RESEARCH

Price objective basis & risk

Woodside Energy Group (WOPEF)

Our \$34.00/sh price objective is based on our riskd NAV, which is a sum of the parts DCF valuation. Our DCF methodology assumes \$70/bbl Brent crude long term, AUD/USD of 0.72 and a 9.5% WACC (RfR 5%, ERP 5% and Beta of 1.0). As DCF is based on life of field cash flows including abandonment costs and there is no terminal value.

Upside risks to our PO: higher than forecast oil and LNG prices, lower than forecast capex and opex and progress in sanctioning its growth projects.

Downside risks to our PO: lower than forecast oil and LNG prices, lower than expected production due to unplanned outages, higher operating costs and cost overruns or delays at its growth projects.

Analyst Certification

I, James Redfern, hereby certify that the views expressed in this research report accurately reflect my personal views about the subject securities and issuers. I also certify that no part of my compensation was, is, or will be, directly or indirectly, related to the specific recommendations or view expressed in this research report.

APR - Energy Coverage Cluster

Investment rating	Company	BofA Ticker	Bloomberg symbol	Analyst
BUY				
	Ampol Ltd	CTXAF	ALD AU	David Errington
	COSL	CHOLF	2883 HK	Yiming Wang
	Formosa Plastics	FSAPF	1301 TT	Joon-Ho Lee
	GS Holdings	GSHDF	078930 KS	Joon-Ho Lee
	Hanwha Solutions Corp.	HNWFF	009830 KS	Joon-Ho Lee
	Indorama Ventures Public Company Limited	INDMF	IVL TB	Komsun Suksumrun
	Karoon Energy	KRNGF	KAR AU	James Redfern
	Kunlun Energy - H	KUNUF	135 HK	Yiming Wang
	LG Chem	LGCLF	051910 KS	Joon-Ho Lee
	LG Energy Solution	XQIEF	373220 KS	Joon-Ho Lee
	Oil and Natural Gas Corporation Limited	XOFOF	ONGC IN	Bharat Subramanian
	Oil India Limited	XLCRF	OINL IN	Bharat Subramanian
	People & Technology	XDFYF	137400 KS	Joon-Ho Lee
	PetroChina	PCCVF	857 HK	Matty Zhao
	Petrochina Co Ltd-A	XPCLF	601857 CH	Matty Zhao
	POSCO Future M	XTAMF	003670 KS	Joon-Ho Lee
	PTT Exploration	PTXLF	PTTEP TB	Komsun Suksumrun
	PTT Global Chemical PLC	XPGOF	PTTGC TB	Komsun Suksumrun
	PTT pcl	PTTPF	PTT TB	Komsun Suksumrun
	Reliance Inds	XRFLF	RELIANCE IN	Sachin Salgaonkar
	Santos Ltd	STOSF	STO AU	James Redfern
	Sinopec	SNPMF	386 HK	Matty Zhao
	Sinopec -A	SNPAF	600028 CH	Matty Zhao
	Sinopec Engineering	SENGF	2386 HK	Yiming Wang
	SK IE Technology	XKWRF	361610 KS	Joon-Ho Lee
	SK Innovation	SKOVF	096770 KS	Joon-Ho Lee
	SKC	XSXOF	011790 KS	Joon-Ho Lee
	S-Oil	SOOCF	010950 KS	Joon-Ho Lee
	Star Petroleum Refining	XSJSF	SPRC TB	Komsun Suksumrun
	Thai Oil - L	TOJF	TOP TB	Komsun Suksumrun
	Viva Energy	XVWWF	VEA AU	David Errington
	Wanhua Chemical	YWNHF	600309 CH	Yiming Wang
	Woodside Energy Group	WOPEF	WDS AU	James Redfern
NEUTRAL				
	Beach Energy Limited	BEPTF	BPT AU	James Redfern
	Envicool	XPTIF	002837 CH	Cheng Gao
	Formosa Chemicals & Fibre	XFUMF	1326 TT	Joon-Ho Lee



APR - Energy Coverage Cluster

Investment rating	Company	BofA Ticker	Bloomberg symbol	Analyst
	Indian Oil Corporation Limited	IOCOF	IOCL IN	Bharat Subramanian
	Kumho Petrochemical	KKMHF	011780 KS	Joon-Ho Lee
	L&F	XLNTF	066970 KS	Joon-Ho Lee
	Nan Ya Plastics	NNYPF	1303 TT	Joon-Ho Lee
	PTT Oil and Retail Business	XNINF	OR TB	Komsun Suksumrun
	Solus Advanced Materials	XSOAF	336370 KS	Joon-Ho Lee

UNDERPERFORM

	Bharat Petroleum Corporation Limited	XBPCF	BPCL IN	Bharat Subramanian
	COSL	XCNRF	601808 CH	Yiming Wang
	Ecopro BM	XKURF	247540 KS	Joon-Ho Lee
	Formosa Petrochemical	FPTCF	6505 TT	Joon-Ho Lee
	Hindustan Petroleum Corporation Limited	XHTPF	HPCL IN	Bharat Subramanian
	IRPC	IRPSF	IRPC TB	Komsun Suksumrun
	Lotte Chemical Corporation	XLCCF	011170 KS	Joon-Ho Lee
	Petronas Chemicals	PECGF	PCHEM MK	Joon-Ho Lee
	Pylon Tech	XPTDF	688063 CH	Cheng Gao
	Sinopec Shanghai Petrochemical Co	SPTJF	338 HK	Yiming Wang
	Sinopec Shanghai Petrochemical Co	SINFF	600688 CH	Yiming Wang

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

iQmethodSM is the set of BofA Global Research standard measures that serve to maintain global consistency under three broad headings: Business Performance, Quality of Earnings, and valuations. The key features of iQmethod are: A consistently structured, detailed, and transparent methodology. Guidelines to maximize the effectiveness of the comparative valuation process, and to identify some common pitfalls.

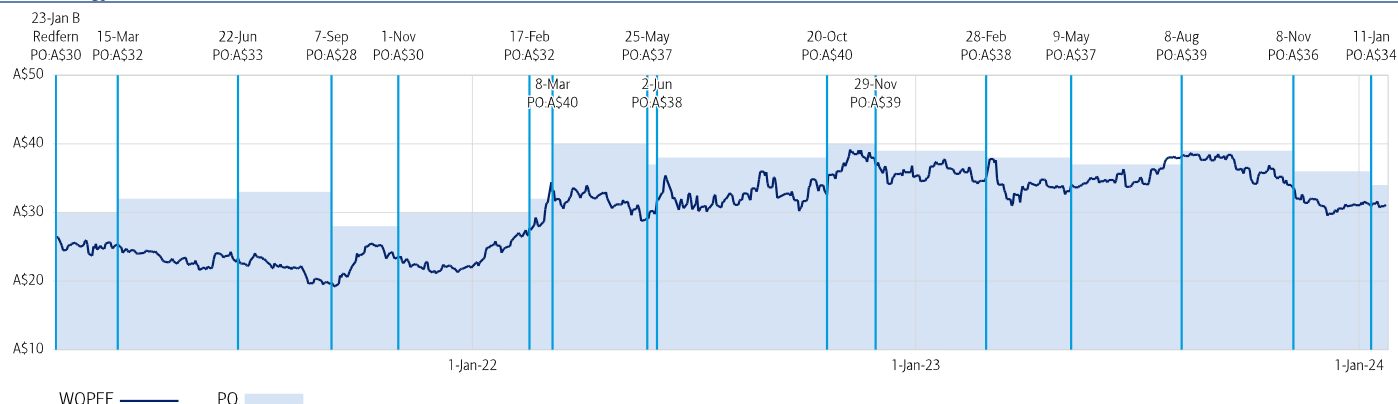
iQdatabase[®] is our real-time global research database that is sourced directly from our equity analysts' earnings models and includes forecasted as well as historical data for income statements, balance sheets, and cash flow statements for companies covered by BofA Global Research.

iQprofileSM, iQmethodSM are service marks of Bank of America Corporation. iQdatabase[®] is a registered service mark of Bank of America Corporation.

Disclosures

Important Disclosures

Woodside Energy (WOPEF) Price Chart



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

The Investment Opinion System is contained at the end of the report under the heading "Fundamental Equity Opinion Key". Dark grey shading indicates the security is restricted with the opinion suspended. Medium grey shading indicates the security is under review with the opinion withdrawn. Light grey shading indicates the security is not covered. Chart is current as of a date no more than one trading day prior to the date of the report.

Equity Investment Rating Distribution: Energy Group (as of 31 Dec 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships ^{R1}	Count	Percent
Buy	83	61.48%	Buy	64	77.11%
Hold	28	20.74%	Hold	21	75.00%
Sell	24	17.78%	Sell	18	75.00%

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

Coverage Universe	Count	Percent	Inv. Banking Relationships ^{R1}	Count	Percent
Buy	1895	53.62%	Buy	1083	57.15%
Hold	832	23.54%	Hold	454	54.57%
Sell	807	22.84%	Sell	383	47.46%

^{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.

FUNDAMENTAL EQUITY OPINION KEY: Opinions include a Volatility Risk Rating, an Investment Rating and an Income Rating. **VOLATILITY RISK RATINGS**, indicators of potential price fluctuation, are: A - Low, B - Medium and C - High. **INVESTMENT RATINGS** reflect the analyst's assessment of both a stock's absolute total return potential as well as its attractiveness for investment relative to other stocks within its Coverage Cluster (defined below). Our investment ratings are: 1 - Buy stocks are expected to have a total return of at least 10% and are the most attractive stocks in the coverage cluster; 2 - Neutral stocks are expected to remain flat or increase in value and are less attractive than Buy rated stocks and 3 - Underperform stocks are the least attractive stocks in a coverage cluster. An investment rating of 6 (No Rating) indicates that a stock is no longer trading on the basis of fundamentals. Analysts assign investment ratings considering, among other things, the 0-12 month total return expectation for a stock and the firm's guidelines for ratings dispersions (shown in the table below). The current price objective for a stock should be referenced to better understand the total return expectation at any given time. The price objective reflects the analyst's view of the potential price appreciation (depreciation).

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%

^{R2} Ratings dispersions may vary from time to time where BofA Global Research believes it better reflects the investment prospects of stocks in a Coverage Cluster.

INCOME RATINGS, indicators of potential cash dividends, are: 7 - same/higher (dividend considered to be secure), 8 - same/lower (dividend not considered to be secure) and 9 - pays no cash dividend. **Coverage Cluster** is comprised of stocks covered by a single analyst or two or more analysts sharing a common industry, sector, region or other classification(s). A stock's coverage cluster is included in the most recent BofA Global Research report referencing the stock.

Price Charts for the securities referenced in this research report are available on the [Price Charts website](#), or call 1-800-MERRILL to have them mailed.

The issuer is or was, within the last 12 months, an investment banking client of BofAS and/or one or more of its affiliates: Woodside Energy.

BofAS or an affiliate has received compensation from the issuer for non-investment banking services or products within the past 12 months: Woodside Energy.

The issuer is or was, within the last 12 months, a non-securities business client of BofAS and/or one or more of its affiliates: Woodside Energy.

BofAS or an affiliate expects to receive or intends to seek compensation for investment banking services from this issuer or an affiliate of the issuer within the next three months: Woodside Energy.

The issuer is or was, within the last 12 months, a securities business client (non-investment banking) of BofAS and/or one or more of its affiliates: Woodside Energy.

BofA Global Research personnel (including the analyst(s) responsible for this report) receive compensation based upon, among other factors, the overall profitability of Bank of America Corporation, including profits derived from investment banking. The analyst(s) responsible for this report may also receive compensation based upon, among other factors, the overall profitability of the Bank's sales and trading businesses relating to the class of securities or financial instruments for which such analyst is responsible.



Other Important Disclosures

From time to time research analysts conduct site visits of covered issuers. BofA Global Research policies prohibit research analysts from accepting payment or reimbursement for travel expenses from the issuer for such visits.

Prices are indicative and for information purposes only. Except as otherwise stated in the report, for any recommendation in relation to an equity security, the price referenced is the publicly traded price of the security as of close of business on the day prior to the date of the report or, if the report is published during intraday trading, the price referenced is indicative of the traded price as of the date and time of the report and in relation to a debt security (including equity preferred and CDS), prices are indicative as of the date and time of the report and are from various sources including BofA Securities trading desks.

The date and time of completion of the production of any recommendation in this report shall be the date and time of dissemination of this report as recorded in the report timestamp.

Recipients who are not institutional investors or market professionals should seek the advice of their independent financial advisor before considering information in this report in connection with any investment decision, or for a necessary explanation of its contents.

Officers of BofAS or one or more of its affiliates (other than research analysts) may have a financial interest in securities of the issuer(s) or in related investments.

Refer to [BofA Global Research policies relating to conflicts of interest](#).

'BofA Securities' includes BofA Securities, Inc. ('BofAS') and its affiliates. Investors should contact their BofA Securities representative or Merrill Global Wealth Management financial advisor if they have questions concerning this report or concerning the appropriateness of any investment idea described herein for such investor. 'BofA Securities' is a global brand for BofA Global Research.

Information relating to Non-US affiliates of BofA Securities and Distribution of Affiliate Research Reports:

BofAS and/or Merrill Lynch, Pierce, Fenner & Smith Incorporated ("MLPF&S") may in the future distribute, information of the following non-US affiliates in the US (short name: legal name, regulator): Merrill Lynch (South Africa): Merrill Lynch South Africa (Pty) Ltd., regulated by The Financial Service Board; MLI (UK): Merrill Lynch International, regulated by the Financial Conduct Authority (FCA) and the Prudential Regulation Authority (PRA); BofASE (France): BofA Securities Europe SA is authorized by the Autorité de Contrôle Prudentiel et de Résolution (ACPR) and regulated by the ACPR and the Autorité des Marchés Financiers (AMF). BofA Securities Europe SA ("BofASE") with registered address at 51, rue La Boétie, 75008 Paris is registered under no 842 602 690 RCS Paris. In accordance with the provisions of French Code Monétaire et Financier (Monetary and Financial Code), BofASE is an établissement de crédit et d'investissement (credit and investment institution) that is authorised and supervised by the European Central Bank and the Autorité de Contrôle Prudentiel et de Résolution (ACPR) and regulated by the ACPR and the Autorité des Marchés Financiers. BofASE's share capital can be found at www.bofam.com/BofASEdisclaimer; BofA Europe (Milan): Bank of America Europe Designated Activity Company, Milan Branch, regulated by the Bank of Italy, the European Central Bank (ECB) and the Central Bank of Ireland (CBI); BofA Europe (Frankfurt): Bank of America Europe Designated Activity Company, Frankfurt Branch regulated by BaFin, the ECB and the CBI; BofA Europe (Madrid): Bank of America Europe Designated Activity Company, Sucursal en España, regulated by the Bank of Spain, the ECB and the CBI; Merrill Lynch (Australia): Merrill Lynch Equities (Australia) Limited, regulated by the Australian Securities and Investments Commission; Merrill Lynch (Hong Kong): Merrill Lynch (Asia Pacific) Limited, regulated by the Hong Kong Securities and Futures Commission (HKSCF); Merrill Lynch (Singapore): Merrill Lynch (Singapore) Pte Ltd, regulated by the Monetary Authority of Singapore (MAS); Merrill Lynch (Canada): Merrill Lynch Canada Inc, regulated by the Canadian Investment Regulatory Organization; Merrill Lynch (Mexico): Merrill Lynch Mexico, SA de CV, Casa de Bolsa, regulated by the Comisión Nacional Bancaria y de Valores; Merrill Lynch (Argentina): Merrill Lynch Argentina SA, regulated by Comisión Nacional de Valores; BofAS Japan: BofA Securities Japan Co., Ltd., regulated by the Financial Services Agency; Merrill Lynch (Seoul): Merrill Lynch International, LLC Seoul Branch, regulated by the Financial Supervisory Service; Merrill Lynch (Taiwan): Merrill Lynch Securities (Taiwan) Ltd., regulated by the Securities and Futures Bureau; BofAS India: BofA Securities India Limited, regulated by the Securities and Exchange Board of India (SEBI); Merrill Lynch (Israel): Merrill Lynch Israel Limited, regulated by Israel Securities Authority; Merrill Lynch (DIFC): Merrill Lynch International (DIFC Branch), regulated by the Dubai Financial Services Authority (DFSA); Merrill Lynch (Brazil): Merrill Lynch S.A. Corretora de Títulos e Valores Mobiliários, regulated by Comissão de Valores Mobiliários; Merrill Lynch KSA Company: Merrill Lynch Kingdom of Saudi Arabia Company, regulated by the Capital Market Authority.

This information: has been approved for publication and is distributed in the United Kingdom (UK) to professional clients and eligible counterparties (as each is defined in the rules of the FCA and the PRA) by MLI (UK), which is authorized by the PRA and regulated by the FCA and the PRA - details about the extent of our regulation by the FCA and PRA are available from us on request; has been approved for publication and is distributed in the European Economic Area (EEA) by BofASE (France), which is authorized by the ACPR and regulated by the ACPR and the AMF; has been considered and distributed in Japan by BofAS Japan, a registered securities dealer under the Financial Instruments and Exchange Act in Japan, or its permitted affiliates; is issued and distributed in Hong Kong by Merrill Lynch (Hong Kong) which is regulated by HKSCF; is issued and distributed in Taiwan by Merrill Lynch (Taiwan); is issued and distributed in India by BofAS India; and is issued and distributed in Singapore to institutional investors and/or accredited investors (each as defined under the Financial Advisers Regulations) by Merrill Lynch (Singapore) (Company Registration No 198602883D). Merrill Lynch (Singapore) is regulated by MAS. Merrill Lynch Equities (Australia) Limited (ABN 65 006 276 795), AFS License 235132 (MLEA) distributes this information in Australia only to 'Wholesale' clients as defined by s.761G of the Corporations Act 2001. With the exception of Bank of America N.A., Australia Branch, neither MLEA nor any of its affiliates involved in preparing this information is an Authorised Deposit-Taking Institution under the Banking Act 1959 nor regulated by the Australian Prudential Regulation Authority. No approval is required for publication or distribution of this information in Brazil and its local distribution is by Merrill Lynch (Brazil) in accordance with applicable regulations. Merrill Lynch (DIFC) is authorized and regulated by the DFSA. Information prepared and issued by Merrill Lynch (DIFC) is done so in accordance with the requirements of the DFSA conduct of business rules. BofA Europe (Frankfurt) distributes this information in Germany and is regulated by BaFin, the ECB and the CBI. BofA Securities entities, including BofA Europe and BofASE (France), may outsource/delegate the marketing and/or provision of certain research services or aspects of research services to other branches or members of the BofA Securities group. You may be contacted by a different BofA Securities entity acting for and on behalf of your service provider where permitted by applicable law. This does not change your service provider. Please refer to the [Electronic Communications Disclaimers](#) for further information.

This information has been prepared and issued by BofAS and/or one or more of its non-US affiliates. The author(s) of this information may not be licensed to carry on regulated activities in your jurisdiction and, if not licensed, do not hold themselves out as being able to do so. BofAS and/or MLPF&S is the distributor of this information in the US and accepts full responsibility for information distributed to BofAS and/or MLPF&S clients in the US by its non-US affiliates. Any US person receiving this information and wishing to effect any transaction in any security discussed herein should do so through BofAS and/or MLPF&S and not such foreign affiliates. Hong Kong recipients of this information should contact Merrill Lynch (Asia Pacific) Limited in respect of any matters relating to dealing in securities or provision of specific advice on securities or any other matters arising from, or in connection with, this information. Singapore recipients of this information should contact Merrill Lynch (Singapore) Pte Ltd in respect of any matters arising from, or in connection with, this information. For clients that are not accredited investors, expert investors or institutional investors Merrill Lynch (Singapore) Pte Ltd accepts full responsibility for the contents of this information distributed to such clients in Singapore.

General Investment Related Disclosures:

Taiwan Readers: Neither the information nor any opinion expressed herein constitutes an offer or a solicitation of an offer to transact in any securities or other financial instrument. No part of this report may be used or reproduced or quoted in any manner whatsoever in Taiwan by the press or any other person without the express written consent of BofA Securities.

This document provides general information only, and has been prepared for, and is intended for general distribution to, BofA Securities clients. Neither the information nor any opinion expressed constitutes an offer or an invitation to make an offer, to buy or sell any securities or other financial instrument or any derivative related to such securities or instruments (e.g., options, futures, warrants, and contracts for differences). This document is not intended to provide personal investment advice and it does not take into account the specific investment objectives, financial situation and the particular needs of, and is not directed to, any specific person(s). This document and its content do not constitute, and should not be considered to constitute, investment advice for purposes of ERISA, the US tax code, the Investment Advisers Act or otherwise. Investors should seek financial advice regarding the appropriateness of investing in financial instruments and implementing investment strategies discussed or recommended in this document and should understand that statements regarding future prospects may not be realized. Any decision to purchase or subscribe for securities in any offering must be based solely on existing public information on such security or the information in the prospectus or other offering document issued in connection with such offering, and not on this document.

Securities and other financial instruments referred to herein, or recommended, offered or sold by BofA Securities, are not insured by the Federal Deposit Insurance Corporation and are not deposits or other obligations of any insured depository institution (including, Bank of America, N.A.). Investments in general and, derivatives, in particular, involve numerous risks, including, among others, market risk, counterparty default risk and liquidity risk. No security, financial instrument or derivative is suitable for all investors. Digital assets are extremely speculative, volatile and are largely unregulated. In some cases, securities and other financial instruments may be difficult to value or sell and reliable information about the value or risks related to the security or financial instrument may be difficult to obtain. Investors should note that income from such securities and other financial instruments, if any, may fluctuate and that price or value of such

securities and instruments may rise or fall and, in some cases, investors may lose their entire principal investment. Past performance is not necessarily a guide to future performance. Levels and basis for taxation may change.

This report may contain a short-term trading idea or recommendation, which highlights a specific near-term catalyst or event impacting the issuer or the market that is anticipated to have a short-term price impact on the equity securities of the issuer. Short-term trading ideas and recommendations are different from and do not affect a stock's fundamental equity rating, which reflects both a longer term total return expectation and attractiveness for investment relative to other stocks within its Coverage Cluster. Short-term trading ideas and recommendations may be more or less positive than a stock's fundamental equity rating.

BofA Securities is aware that the implementation of the ideas expressed in this report may depend upon an investor's ability to "short" securities or other financial instruments and that such action may be limited by regulations prohibiting or restricting "shortselling" in many jurisdictions. Investors are urged to seek advice regarding the applicability of such regulations prior to executing any short idea contained in this report.

Foreign currency rates of exchange may adversely affect the value, price or income of any security or financial instrument mentioned herein. Investors in such securities and instruments, including ADRs, effectively assume currency risk.

BofAS or one of its affiliates is a regular issuer of traded financial instruments linked to securities that may have been recommended in this report. BofAS or one of its affiliates may, at any time, hold a trading position (long or short) in the securities and financial instruments discussed in this report.

BofA Securities, through business units other than BofA Global Research, may have issued and may in the future issue trading ideas or recommendations that are inconsistent with, and reach different conclusions from, the information presented herein. Such ideas or recommendations may reflect different time frames, assumptions, views and analytical methods of the persons who prepared them, and BofA Securities is under no obligation to ensure that such other trading ideas or recommendations are brought to the attention of any recipient of this information.

In the event that the recipient received this information pursuant to a contract between the recipient and BofAS for the provision of research services for a separate fee, and in connection therewith BofAS may be deemed to be acting as an investment adviser, such status relates, if at all, solely to the person with whom BofAS has contracted directly and does not extend beyond the delivery of this report (unless otherwise agreed specifically in writing by BofAS). If such recipient uses the services of BofAS in connection with the sale or purchase of a security referred to herein, BofAS may act as principal for its own account or as agent for another person. BofAS is and continues to act solely as a broker-dealer in connection with the execution of any transactions, including transactions in any securities referred to herein.

Copyright and General Information:

Copyright 2024 Bank of America Corporation. All rights reserved. iQdatabase® is a registered service mark of Bank of America Corporation. This information is prepared for the use of BofA Securities clients and may not be redistributed, retransmitted or disclosed, in whole or in part, or in any form or manner, without the express written consent of BofA Securities. BofA Global Research information is distributed simultaneously to internal and client websites and other portals by BofA Securities and is not publicly-available material. Any unauthorized use or disclosure is prohibited. Receipt and review of this information constitutes your agreement not to redistribute, retransmit, or disclose to others the contents, opinions, conclusion, or information contained herein (including any investment recommendations, estimates or price targets) without first obtaining express permission from an authorized officer of BofA Securities.

Materials prepared by BofA Global Research personnel are based on public information. Facts and views presented in this material have not been reviewed by, and may not reflect information known to, professionals in other business areas of BofA Securities, including investment banking personnel. BofA Securities has established information barriers between BofA Global Research and certain business groups. As a result, BofA Securities does not disclose certain client relationships with, or compensation received from, such issuers. To the extent this material discusses any legal proceeding or issues, it has not been prepared as nor is it intended to express any legal conclusion, opinion or advice. Investors should consult their own legal advisers as to issues of law relating to the subject matter of this material. BofA Global Research personnel's knowledge of legal proceedings in which any BofA Securities entity and/or its directors, officers and employees may be plaintiffs, defendants, co-defendants or co-plaintiffs with or involving issuers mentioned in this material is based on public information. Facts and views presented in this material that relate to any such proceedings have not been reviewed by, discussed with, and may not reflect information known to, professionals in other business areas of BofA Securities in connection with the legal proceedings or matters relevant to such proceedings.

This information has been prepared independently of any issuer of securities mentioned herein and not in connection with any proposed offering of securities or as agent of any issuer of any securities. None of BofAS or any of its affiliates or their research analysts has any authority whatsoever to make any representation or warranty on behalf of the issuer(s). BofA Global Research policy prohibits research personnel from disclosing a recommendation, investment rating, or investment thesis for review by an issuer prior to the publication of a research report containing such rating, recommendation or investment thesis.

Any information relating to the tax status of financial instruments discussed herein is not intended to provide tax advice or to be used by anyone to provide tax advice. Investors are urged to seek tax advice based on their particular circumstances from an independent tax professional.

The information herein (other than disclosure information relating to BofA Securities and its affiliates) was obtained from various sources and we do not guarantee its accuracy. This information may contain links to third-party websites. BofA Securities is not responsible for the content of any third-party website or any linked content contained in a third-party website. Content contained on such third-party websites is not part of this information and is not incorporated by reference. The inclusion of a link does not imply any endorsement by or any affiliation with BofA Securities. Access to any third-party website is at your own risk, and you should always review the terms and privacy policies at third-party websites before submitting any personal information to them. BofA Securities is not responsible for such terms and privacy policies and expressly disclaims any liability for them.

All opinions, projections and estimates constitute the judgment of the author as of the date of publication and are subject to change without notice. Prices also are subject to change without notice. BofA Securities is under no obligation to update this information and BofA Securities ability to publish information on the subject issuer(s) in the future is subject to applicable quiet periods. You should therefore assume that BofA Securities will not update any fact, circumstance or opinion contained herein.

Subject to the quiet period applicable under laws of the various jurisdictions in which we distribute research reports and other legal and BofA Securities policy-related restrictions on the publication of research reports, fundamental equity reports are produced on a regular basis as necessary to keep the investment recommendation current.

Certain outstanding reports or investment opinions relating to securities, financial instruments and/or issuers may no longer be current. Always refer to the most recent research report relating to an issuer prior to making an investment decision.

In some cases, an issuer may be classified as Restricted or may be Under Review or Extended Review. In each case, investors should consider any investment opinion relating to such issuer (or its security and/or financial instruments) to be suspended or withdrawn and should not rely on the analyses and investment opinion(s) pertaining to such issuer (or its securities and/or financial instruments) nor should the analyses or opinion(s) be considered a solicitation of any kind. Sales persons and financial advisors affiliated with BofAS or any of its affiliates may not solicit purchases of securities or financial instruments that are Restricted or Under Review and may only solicit securities under Extended Review in accordance with firm policies.

Neither BofA Securities nor any officer or employee of BofA Securities accepts any liability whatsoever for any direct, indirect or consequential damages or losses arising from any use of this information.