

13 Nov 2023 05:00:21 ET | 20 pages

# MENA IT Services

## Still waiting for new catalysts or more attractive entry points

### CITI'S TAKE

We update our estimates post 3Q23 for Elm and Solutions, while keeping both stock at Neutral. Valuations remained broadly flat over the last 3m with Elm trading at 37x '24 P/E and Solutions at 26x '24 P/E. In the absence of beat&raise in 3Q (as opposed to previous quarters) to turn more positive on the sector we would need either more attractive valuation, or upside driven by more active M&A (given solid net cash position), or higher visibility on development of new platforms (for Elm in particular).

**3Q23 wrap up** — Topline growth momentum was maintained in 3Q23 as Elm/Solutions reported +30%/+37% sales growth respectively, though for Solutions it was largely M&A-driven (organic growth +7%). Margins were strong for [Solutions](#), but weaker for [Elm](#), yet 9M23 results track ahead of current guidance for both companies. FY23 guidance remained unchanged, considering that 4Q is seasonally low quarter for Elm/Solutions. We adjust our estimates reflecting recent results / macro.

**Valuations broadly unchanged over last 3m** — Elm/Solutions valuations have remained broadly flat over the last 3m (since our [update on IT services](#)), with Elm trading at 37x '24E P/E and Solutions at 26x '24E P/E (c.30% discount to Elm).

**Elm (Neutral)** — While we like Elm's structural growth opportunities in digital space, to turn more positive we would need more attractive valuation at current fundamentals (37x '24x P/E, 23-26e EPS CAGR +16%), all else being equal. We see limited upside to our updated TP of SAR 770 (from SAR 760); remain Neutral. The key upside risks are related to more active M&A (given solid net cash position) or higher visibility on development of new platforms (similar to Nusuk this year). On the downside, we flag risk related to KSA budget deficit (potentially leading to a review of Elm's contracts) and an overhang risk (shares +460% since IPO in Feb-22).

**Solutions (Neutral)** — While organic growth reached only 6% in 9M23 (total growth incl. M&A +28%), we do not see consensus growth estimates in 2024-25 (12-15%) as overly optimistic, with possible upside driven by new M&A and STC-driven exposure to mega-projects. Balance sheet remains strong (USD 510mn net cash in 3Q23). Updated TP of SAR350 (from SAR360) is consistent with a Neutral rating.

Maksim Nekrasov <sup>AC</sup>

Company Ticker	Ccy	Price	Mkt Cap (M)	Date & Time	Rating		Target Price		ESPR (%)	Div Yld (%)	ETR (%)	Last Rpt Yr	Current Fiscal Year EPS		Next Fiscal Year EPS	
					Old	New	Old	New					Old	New	Old	New
Elm 7203.SE	SAR	709.20	56,736	09 Nov 15:00	2	nc	760.00	770.00	8.6	0.8	9.4	Dec-22	16.18	16.26	19.24	19.34
Solutions 7202.SE	SAR	311.00	37,320	09 Nov 15:00	2	nc	360.00	350.00	12.5	1.9	14.5	Dec-22	11.13	10.61	12.45	11.86

1 = Buy, 2 = Neutral, 3 = Sell, H = High Risk  
Source: Citi Research

ESPR = Expected Share Price Return, ETR = Expected Total Return, nc = no change

### See Appendix A-1 for Analyst Certification, Important Disclosures and Research Analyst Affiliations.

Citi Research is a division of Citigroup Global Markets Inc. (the "Firm"), which does and seeks to do business with companies 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. Certain products (not inconsistent with the author's published research) are available only on Citi's portals.

## Earnings Estimates

Company Name	Ticker	Last Rpt Year	Currency	Last Reported Year				FY0	Current Fiscal Year				FY1	Next Fiscal Year				FY2
				1Q	2Q	3Q	4Q		1Q	2Q	3Q	4Q		1Q	2Q	3Q	4Q	
Elm Company	7203.SE	Dec-22	SAR	3.12	2.78	3.44	2.29	11.63	-	-	-	-	16.26	-	-	-	-	19.34
Old		Dec-22	SAR	3.12	2.78	3.44	2.29	11.63	-	-	-	-	16.18	-	-	-	-	19.24
Solutions	7202.SE	Dec-22	SAR	2.34	2.18	2.61	1.65	8.77	2.53	2.83	3.22	2.02	10.61	-	-	-	-	11.86
Old		Dec-22	SAR	2.36	2.28	2.50	1.64	8.77	2.53	2.83	2.79	2.56	11.13	-	-	-	-	12.45

Source: Citi Research

## KSA IT Services 3Q23 update

**Figure 1. Elm: We are above FY23 guidance on topline growth but in line on margins**

	2022 actual	FY23 Guidance		9M23 Actual	FY23	
		May-23	Aug-23		Citi	Consensus
Revenue growth	20%	14-16%	21-23%	27.7%	25.3%	24.8%
EBIT Margin	21.1%	19-21%	22-24%	24.2%	23.2%	24.2%
EBITDA Margin	23.7%	-	-	26.7%	25.7%	25.5%
CFO as % of Net Income	180%	80-90%	80-90%	83%	96%	101%

© 2023 Citigroup Inc. No redistribution without Citigroup's written permission.

Source: Citi Research, Company Reports

**Figure 2. Solutions: We remain slightly above on growth and margins vs. FY23 guidance**

	2023 Guidance			Actual 9M23	FY23	
	Feb-23	May-23	Aug-23		Citi	Cons
Revenue	11-13%	16-19%	19-22%	28.3%	24.3%	23.0%
EBITDA Margin	13% to 15%	13% to 15%	13% to 15%	17.0%	16.0%	15.4%
Capex Intensity	1.5%-2%	1.5%-2%	1.5-2%	1.1%	1.5%	1.7%

© 2023 Citigroup Inc. No redistribution without Citigroup's written permission.

Source: Citi Research, Company Reports, Company-compiled consensus

### Target price changes

For Elm our 2023-24E sales/EPS increase by 2%/1% to reflect stronger topline momentum. Our TP for Elm changes marginally to SAR 770 (from SAR 760), it is based on target '24E P/E of 40x, at about 2x premium to global large cap peers to account for higher growth, and DCF-based valuation (we apply 4.5% terminal growth rate assumption).

For Solutions our EPS decline by 5% in 2023-24E, reflecting weaker margin expectations in 4Q23, higher tax and lower financial income expectations. Our TP for Solutions moves to SAR 350 (from SAR 360) based on target '24E P/E at 30x (25% discount vs. Elm), and DCF-based valuation (we apply 3% terminal growth rate assumption).

Figure 3. KSA valuation (covered by Citi), priced as of 10 November, 2023, 14-00 GMT

Company name	Ccy	Share price	Target price	Upside	Rating	Market Cap \$ mn	CAGR 2022-24			EV/EBITDA			PEG	P/E			FCF yield			Price change	
							Sales	EPS	EBITDA	2022	2023e	2024e		2024e	2022	2023e	2024e	2022e	2023e	2024e	3m
KSA IT Services							21%	23%	24%	39.2x	29.8x	24.4x	1.4x	48.2x	36.5x	31.5x	3%	1%	3%		
Solutions	SAR	311.0	350.0	13%	Neutral	9,950	20%	16%	20%	27.0x	21.9x	18.5x	1.6x	35.4x	29.3x	26.2x	4%	-1%	3%	-5%	28%
Elm	SAR	709.2	770.0	9%	Neutral	15,126	23%	29%	28%	51.4x	37.7x	30.4x	1.3x	61.0x	43.6x	36.7x	3%	2%	3%	4%	114%
Retail / consumer							10%	21%	12%	14.6x	13.2x	11.5x	0.9x	22.2x	25.2x	19.9x	32%	6%	7%		
Abdullah Al Othaim Markets	SAR	13.0	14.9	15%	Neutral	3,110	12%	24%	19%	16.2x	13.3x	10.4x	0.8x	1.1x	21.6x	19.9x	63%	6%	6%	-10%	25%
Almarai	SAR	53.9	64.0	19%	Buy	14,370	6%	18%	10%	15.9x	14.1x	13.0x	1.2x	30.7x	25.2x	22.0x	3%	6%	6%	-17%	1%
BinDawood Holding Co	SAR	6.1	7.0	16%	Neutral	1,844	12%	67%	19%	10.9x	9.2x	7.9x	0.3x	55.4x	34.6x	19.9x	6%	5%	8%	-7%	25%
Jarir Marketing Company	SAR	14.3	15.8	10%	Neutral	4,588	10%	-68%	2%	15.3x	16.2x	14.8x	-0.3x	1.8x	19.4x	17.7x	55%	5%	6%	-7%	-4%
Al Dawaa Medical Services Company	SAR	99.4	115.0	16%	Buy	2,253	7%	21%	15%	14.3x	12.2x	10.4x	0.9x	27.7x	23.6x	18.9x	6%	5%	7%	1%	38%
Nahdi Medical Company	SAR	131.4	165.0	26%	Neutral	4,554	3%	6%	4%	11.0x	10.3x	9.6x	2.6x	19.2x	18.2x	17.0x	8%	8%	8%	-15%	-21%
Hospitals							18%	18%	18%	35.4x	30.5x	24.7x	1.8x	44.1x	38.5x	31.1x	2%	2%	3%		
Mouwassat Medical Services	SAR	107.8	132.5	23%	Neutral	5,748	13%	13%	11%	26.2x	23.0x	20.3x	2.0x	34.1x	30.3x	26.7x	2%	4%	4%	3%	3%
Dr Sulaiman Al-Habib Medical Service	SAR	255.2	280.0	10%	Neutral	23,813	22%	23%	25%	44.6x	38.1x	29.0x	1.5x	54.1x	46.7x	35.6x	1%	0%	2%	-4%	16%
Financials							11%			31.2x	38.9x	32.3x	6.5x	19.4x	18.1x	16.5x	2%	1%	2%		
Al Rajhi Bank	SAR	70.8	83.0	17%	Buy	75,502	1%						24.5x	16.7x	17.8x	16.5x				-2%	-6%
Alinma Bank	SAR	34.9	38.0	9%	Neutral	18,582	25%						0.5x	20.1x	14.9x	12.9x				-4%	7%
Banque Saudi Fransi	SAR	37.2	41.2	11%	Neutral	11,951	18%						0.5x	13.4x	10.1x	9.6x				-4%	-8%
Riyad Bank	SAR	27.5	32.2	17%	Buy	21,955	7%						1.5x	11.8x	10.6x	10.3x				-10%	-14%
Saudi Awwal Bank	SAR	34.7	43.0	24%	Buy	19,009	18%						0.6x	13.9x	9.9x	10.1x				-5%	-11%
Saudi National Bank	SAR	35.1	42.0	20%	Buy	56,067	2%						6.3x	11.6x	11.1x	11.2x				-3%	-7%
Saudi Tadawul Group Holding	SAR	171.0	150.0	-12%	Sell	5,471	5%	4%	-8%	31.2x	38.9x	32.3x	11.7x	48.3x	52.1x	44.8x	2%	1%	2%	-4%	-6%
TMT							4%	5%	2%	6.9x	6.7x	6.4x	2.9x	15.7x	16.1x	16.0x	9%	7%	7%		
Saudi Telecom Company	SAR	38.2	42.0	10%	Neutral	50,921	7%	5%	3%	7.2x	6.9x	6.5x	2.9x	15.7x	14.4x	14.3x	11%	7%	8%	-8%	4%
Emirates Telecommunications Group	Dh	19.6	18.0	-8%	Sell	46,457	2%	-	0%	6.5x	6.5x	6.3x	-	-	17.9x	17.7x	7%	6%	6%	-10%	-14%
O&G and Industrials							2%	5%	9%	19.6x	20.7x	15.0x	0.3x	42.1x	41.7x	37.6x	8%	2%	5%		
Saudi Aramco Base Oil Company JSC	\$	135.4	134.0	-1%	Neutral	6,092	-13%	-22%	-19%	9.3x	11.9x	15.1x	-0.9x	11.6x	14.2x	18.8x	8%	2%	5%	-5%	46%
ACWA Power	\$	211.8	190.0	-10%	Neutral	41,283	47%	34%	28%	53.4x	45.2x	33.5x	1.7x	100.5x	93.1x	56.3x	0%	-4%	-2%	15%	39%
Saudi Kayan Petrochemical Co	\$	10.7	13.0	21%	Neutral	4,287	-3%	-	43%	17.9x	17.1x	7.9x	-	-	-	65.0x	17%	5%	11%	-11%	-22%
Yanbu National Petrochemical Co	\$	37.7	42.0	11%	Neutral	5,654	-7%	18%	6%	10.6x	20.6x	9.8x	1.7x	42.7x	-	30.6x	7%	1%	7%	-15%	-9%

© 2023 Citigroup Inc. No redistribution without Citigroup's written permission.

Source: Citi Research, DataStream

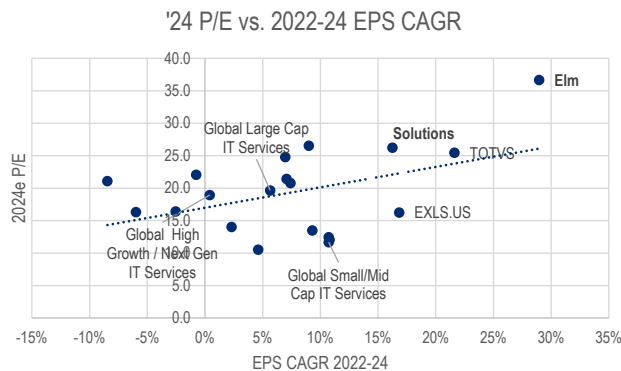
Figure 4. Global IT services valuation (covered by Citi), priced as of 10 November, 2023, 14-00 GMT

Company name	Ccy	Share price	Target price	Upside	Rating	Market Cap \$ mn	CAGR 2022-24			EV/EBITDA		P/E			PEG	FCF yield		EBITDA margin		Price change	
							Sales	EPS	EBITDA	2023e	2024e	2023e	2024e	2025e	2024e	2023e	2024e	2023e	2024e	3m	YTD
KSA IT							21%	23%	24%	29.8x	24.4x	36.5x	31.5x	27.6x	1.4x	1%	3%	21%	21%		
Solutions	SAR	311.0	350.0	13%	Neutral	9,950	20%	16%	20%	21.9x	18.5x	29.3x	26.2x	23.2x	1.6x	-1%	3%	16%	16%	-5%	28%
Elm Company	SAR	709.2	770.0	9%	Neutral	15,126	23%	29%	28%	37.7x	30.4x	43.6x	36.7x	32.0x	1.3x	2%	3%	26%	26%	4%	114%
Global High Growth / Next Gen IT Services							8%	0%	1%	13.8x	12.3x	21.5x	18.9x	15.2x	-8.3x	4%	4%	19%	19%		
EPAM Systems, Inc.	\$	237.0	250.0	5%	Neutral	13,676	0%	-1%	-3%	14.7x	14.0x	22.8x	22.1x	18.0x	-29.1x	4%	4%	17%	17%	-3%	-28%
ExlService Holdings Inc	\$	26.7	29.0	9%	Neutral	4,400	13%	17%	14%	12.8x	11.4x	18.6x	16.2x	14.2x	1.0x	4%	4%	22%	22%	-3%	-21%
Netcompany	Dkr	209.8	240.0	14%	Neutral	1,501	9%	-6%	-1%	13.4x	11.3x	22.2x	16.3x	12.9x	-2.7x	3%	4%	15%	17%	-31%	-29%
Endava	£	53.3	63.0	18%	Buy	3,080	9%	-8%	-5%	14.5x	12.4x	22.4x	21.1x	15.9x	-2.5x	4%	5%	21%	21%	8%	-30%
Global Large Cap IT Services							7%	6%	5%	13.0x	12.3x	20.9x	19.6x	18.2x	3.3x	5%	5%	21%	21%		
Accenture Ltd	\$	314.2	341.0	9%	Buy	208,889	3%	7%	5%	16.5x	15.6x	26.5x	24.8x	22.6x	3.6x	5%	5%	19%	19%	1%	18%
Capgemini SE	€	170.7	215.0	26%	Buy	31,610	4%	9%	7%	9.0x	8.2x	14.6x	13.5x	11.9x	1.4x	6%	7%	16%	16%	4%	9%
Cognizant	\$	64.7	76.0	18%	Buy	32,416	0%	2%	-2%	8.9x	8.7x	14.6x	14.0x	12.8x	6.1x	6%	7%	17%	18%	-9%	13%
Infosys	Rs	1370.7	1565.0	14%	Neutral	68,086	12%	7%	9%	14.0x	13.1x	23.0x	21.4x	20.1x	3.0x	4%	4%	24%	24%	-1%	-9%
Wipro	Rs	380.2	360.0	-5%	Sell	23,797	6%	-3%	0%	10.2x	9.7x	18.1x	16.4x	15.2x	-	5%	5%	19%	19%	-9%	-3%
Tata Consultancy Service	Rs	3343.3	3170.0	-5%	Sell	146,823	12%	9%	9%	18.9x	18.1x	27.6x	26.5x	25.3x	2.9x	3%	3%	26%	26%	-3%	5%
HCL Technologies	Rs	1257.9	1295.0	3%	Neutral	40,882	13%	7%	9%	13.3x	12.4x	22.2x	20.8x	19.5x	2.8x	4%	4%	22%	22%	11%	21%
Global Small/Mid Cap IT Services							6%	11%	9%	7.9x	7.4x	12.6x	11.7x	10.2x	1.5x	7%	8%	22%	22%		
Amdocs Ltd	\$	80.2	96.0	20%	Buy	9,546	5%	11%	5%	9.3x	8.7x	13.2x	12.0x	-	1.1x	7%	8%	21%	21%	-8%	-12%
Genpact Ltd	\$	31.6	35.0	11%	Neutral	5,733	3%	5%	8%	7.9x	7.5x	10.9x	10.5x	9.5x	2.3x	7%	8%	18%	18%	-16%	-32%
WNS Holdings Ltd	\$	56.2	73.0	30%	Buy	2,668	12%	11%	14%	6.6x	6.0x	13.7x	12.5x	10.9x	1.2x	6%	7%	28%	28%	-13%	-30%
Brazil IT							18%	31%	48%	12.1x	9.8x	-137.1x	45.0x	29.5x	1.4x	-24%	0%	17%	19%		
TOTVS	\$	31.0	36.0	16%	Buy	3,875	16%	22%	17%	16.8x	13.7x	37.2x	25.5x	21.3x	1.2x	2%	3%	23%	23%	11%	12%
Infracommerce CXAAS	\$	1.4	3.5	146%	Buy	111	19%	-	89%	6.3x	5.1x	-	-	-	-	-63%	-1%	13%	16%	-16%	-62%
Locaweb	\$	6.6	9.5	44%	Buy	798	19%	41%	37%	13.1x	10.5x	-311.3x	64.6x	37.8x	1.6x	-11%	-2%	16%	18%	-15%	-6%

© 2023 Citigroup Inc. No redistribution without Citigroup's written permission.

Source: Citi Research, DataStream

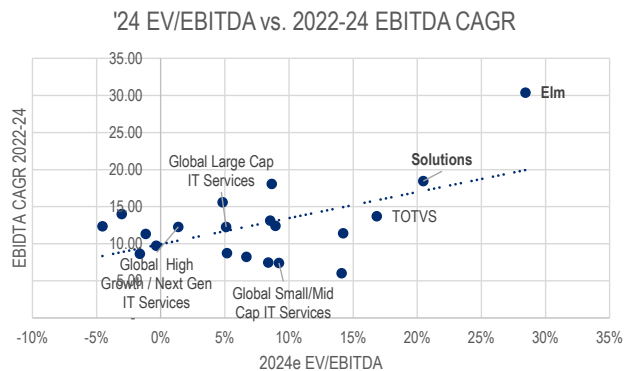
Figure 5. Global IT services '24E P/E vs. EPS CAGR



© 2023 Citigroup Inc. No redistribution without Citigroup's written permission.

Source: Citi Research, DataStream

Figure 6. Global IT Services '24E EV/EBITDA vs. EBITDA growth



© 2023 Citigroup Inc. No redistribution without Citigroup's written permission.

Source: Citi Research, DataStream

7203.SE: Fiscal year end 31-Dec						Price: SAR709.20; TP: SAR770.00; Market Cap: SAR56,736m; Recomm: Neutral					
Profit & Loss (SARm)	2021	2022	2023E	2024E	2025E	Valuation ratios	2021	2022	2023E	2024E	2025E
Sales revenue	3,828	4,606	5,770	6,947	8,010	PE (x)	na	61.0	43.6	36.7	32.0
Cost of sales	-2,505	-2,720	-3,391	-4,062	-4,674	PB (x)	20.2	18.6	13.3	10.5	8.4
Gross profit	1,323	1,886	2,379	2,885	3,336	EV/EBITDA (x)	76.5	51.4	37.7	30.4	25.8
Gross Margin (%)	34.6	40.9	41.2	41.5	41.6	FCF yield (%)	0.8	2.6	1.9	2.5	2.9
<b>EBITDA (Adj)</b>	<b>730</b>	<b>1,092</b>	<b>1,482</b>	<b>1,802</b>	<b>2,082</b>	Dividend yield (%)	na	0.7	0.8	1.0	1.1
EBITDA Margin (Adj) (%)	19.1	23.7	25.7	25.9	26.0	Payout ratio (%)	0	43	37	36	36
Depreciation	-116	-120	-144	-174	-200	ROE (%)	22.5	31.8	35.6	32.0	29.2
Amortisation	0	0	0	0	0	Cashflow (SARm)					
<b>EBIT (Adj)</b>	<b>615</b>	<b>972</b>	<b>1,338</b>	<b>1,629</b>	<b>1,882</b>	EBITDA	730	1,092	1,482	1,802	2,082
EBIT Margin (Adj) (%)	16.1	21.1	23.2	23.4	23.5	Working capital	-214	400	-409	-183	-222
Net interest	4	33	70	68	65	Other	22	160	170	23	19
Associates	3	-1	2	2	2	<b>Operating cashflow</b>	<b>538</b>	<b>1,653</b>	<b>1,243</b>	<b>1,641</b>	<b>1,880</b>
Non-Op/Except/Other Adj	27	19	20	20	20	Capex	-24	-112	-53	-208	-240
<b>Pre-tax profit</b>	<b>649</b>	<b>1,023</b>	<b>1,430</b>	<b>1,718</b>	<b>1,969</b>	Net acq/disposals	0	0	0	0	0
Tax	-82	-93	-129	-172	-196	Other	-151	-1,620	480	0	0
Extraord./Min.Int./Pref.div.	0	0	0	0	0	<b>Investing cashflow</b>	<b>-175</b>	<b>-1,731</b>	<b>427</b>	<b>-208</b>	<b>-240</b>
<b>Reported net profit</b>	<b>567</b>	<b>930</b>	<b>1,301</b>	<b>1,547</b>	<b>1,773</b>	Dividends paid	0	-388	-466	-543	-621
Net Margin (%)	14.8	20.2	22.5	22.3	22.1	<b>Financing cashflow</b>	<b>-15</b>	<b>-695</b>	<b>-466</b>	<b>-543</b>	<b>-621</b>
Core NPAT	567	930	1,301	1,547	1,773	<b>Net change in cash</b>	<b>349</b>	<b>-774</b>	<b>1,204</b>	<b>890</b>	<b>1,019</b>
Per share data						<b>Free cashflow to s/holders</b>	<b>444</b>	<b>1,499</b>	<b>1,070</b>	<b>1,433</b>	<b>1,640</b>
Reported EPS (SAR)	7.09	11.63	16.26	19.34	22.16						
Core EPS (SAR)	7.09	11.63	16.26	19.34	22.16						
DPS (SAR)	0	5.00	6.00	7.00	8.00						
CFPS (SAR)	6.73	20.66	15.53	20.52	23.50						
FCFPS (SAR)	5.55	18.74	13.37	17.91	20.50						
BVPS (SAR)	35.12	38.09	53.23	67.56	84.32						
Wtd avg ord shares (m)	80.0	80.0	80.0	80.0	80.0						
Wtd avg diluted shares (m)	80.0	80.0	80.0	80.0	80.0						
Growth rates											
Sales revenue (%)	55.2	20.3	25.3	20.4	15.3						
EBIT (Adj) (%)	72.8	58.2	37.6	21.7	15.6						
Core NPAT (%)	84.9	64.1	39.9	18.9	14.6						
Core EPS (%)	84.9	64.1	39.9	18.9	14.6						
Balance Sheet (SARm)											
Cash & cash equiv.	1,362	589	1,913	2,803	3,822						
Accounts receivables	1,655	1,465	2,019	2,552	3,090						
Inventory	0	0	0	0	0						
Net fixed & other tangibles	528	611	641	728	828						
Goodwill & intangibles	273	260	280	301	319						
Financial & other assets	1,375	3,101	2,788	3,004	3,199						
<b>Total assets</b>	<b>5,194</b>	<b>6,026</b>	<b>7,641</b>	<b>9,388</b>	<b>11,258</b>						
Accounts payable	667	1,113	1,409	1,697	1,957						
Short-term debt	24	25	25	25	25						
Long-term debt	50	25	0	0	0						
Provisions & other liab	1,643	1,816	1,949	2,261	2,531						
<b>Total liabilities</b>	<b>2,385</b>	<b>2,979</b>	<b>3,383</b>	<b>3,983</b>	<b>4,513</b>						
Shareholders' equity	2,810	3,047	4,258	5,405	6,746						
Minority interests	0	0	0	0	0						
<b>Total equity</b>	<b>2,810</b>	<b>3,047</b>	<b>4,258</b>	<b>5,405</b>	<b>6,746</b>						
<b>Net debt (Adj)</b>	<b>-1,288</b>	<b>-539</b>	<b>-1,888</b>	<b>-2,778</b>	<b>-3,797</b>						
Net debt to equity (Adj) (%)	-45.8	-17.7	-44.3	-51.4	-56.3						

For definitions of the items in this table, please click [here](#).

7202.SE: Fiscal year end 31-Dec						Price: SAR311.00; TP: SAR350.00; Market Cap: SAR37,320m; Recomm: Neutral					
Profit & Loss (SARm)	2021	2022	2023E	2024E	2025E	Valuation ratios	2021	2022	2023E	2024E	2025E
Sales revenue	7,208	8,805	10,948	12,575	14,173	PE (x)	44.8	35.4	29.3	26.2	23.2
Cost of sales	-5,500	-6,794	-8,123	-9,507	-10,714	PB (x)	16.4	13.4	9.9	7.8	6.1
Gross profit	1,708	2,011	2,825	3,068	3,458	EV/EBITDA (x)	32.8	27.0	21.9	18.5	16.2
Gross Margin (%)	23.7	22.8	25.8	24.4	24.4	FCF yield (%)	2.8	4.2	-0.6	3.2	3.5
EBITDA (Adj)	1,107	1,365	1,702	1,981	2,239	Dividend yield (%)	1.1	1.3	1.6	1.9	2.2
EBITDA Margin (Adj) (%)	15.4	15.5	15.5	15.8	15.8	Payout ratio (%)	48	45	47	51	51
Depreciation	-209	-232	-290	-333	-376	ROE (%)	39.7	41.6	38.9	33.3	29.6
Amortisation	0	0	0	0	0	Cashflow (SARm)	2021	2022	2023E	2024E	2025E
EBIT (Adj)	901	1,132	1,412	1,647	1,864	EBITDA	1,110	1,365	1,702	1,981	2,239
EBIT Margin (Adj) (%)	12.5	12.9	12.9	13.1	13.2	Working capital	123	732	-1,295	-174	-237
Net interest	3	38	61	-12	-12	Other	133	-27	264	28	25
Associates	0	0	0	0	0	Operating cashflow	1,367	2,070	670	1,834	2,027
Non-Op/Except/Other Adj	0	1	0	0	0	Capex	-155	-134	-164	-189	-213
Pre-tax profit	904	1,171	1,473	1,635	1,852	Net acq/disposals	0	-372	-747	-440	-496
Tax	-71	-118	-200	-213	-241	Other	-16	-2,686	2,050	0	0
Extraord./Min.Int./Pref.div.	0	-1	0	0	0	Investing cashflow	-171	-3,191	1,139	-629	-709
Reported net profit	833	1,053	1,273	1,423	1,611	Dividends paid	-400	-475	-600	-720	-816
Net Margin (%)	11.6	12.0	11.6	11.3	11.4	Financing cashflow	-581	79	-552	-720	-816
Core NPAT	833	1,053	1,273	1,423	1,611	Net change in cash	614	-1,063	1,207	486	503
Per share data	2021	2022	2023E	2024E	2025E	Free cashflow to s/holders	1,030	1,565	-241	1,206	1,319
Reported EPS (SAR)	6.94	8.77	10.61	11.86	13.42						
Core EPS (SAR)	6.94	8.77	10.61	11.86	13.42						
DPS (SAR)	3.33	3.96	5.00	6.00	6.80						
CFPS (SAR)	11.39	17.25	5.58	15.29	16.90						
FCFPS (SAR)	8.59	13.04	-2.01	10.05	10.99						
BVPS (SAR)	18.92	23.28	31.32	39.87	50.86						
Wtd avg ord shares (m)	120	120	120	120	120						
Wtd avg diluted shares (m)	120	120	120	120	120						
Growth rates	2021	2022	2023E	2024E	2025E						
Sales revenue (%)	4.6	22.2	24.3	14.9	12.7						
EBIT (Adj) (%)	19.4	25.7	24.6	16.7	13.1						
Core NPAT (%)	18.7	26.4	20.9	11.8	13.2						
Core EPS (%)	18.7	26.4	20.9	11.8	13.2						
Balance Sheet (SARm)	2021	2022	2023E	2024E	2025E						
Cash & cash equiv.	1,608	544	1,751	2,237	2,740						
Accounts receivables	3,021	4,345	4,862	5,305	5,680						
Inventory	274	322	401	460	519						
Net fixed & other tangibles	628	526	784	1,033	1,314						
Goodwill & intangibles	98	373	746	1,041	1,393						
Financial & other assets	1,544	4,172	3,119	3,486	3,846						
Total assets	7,173	10,282	11,663	13,563	15,491						
Accounts payable	1,931	2,573	2,768	3,078	3,295						
Short-term debt	0	194	242	242	242						
Long-term debt	31	518	518	518	518						
Provisions & other liab	2,939	4,174	4,347	4,912	5,304						
Total liabilities	4,902	7,459	7,876	8,750	9,360						
Shareholders' equity	2,271	2,794	3,758	4,784	6,103						
Minority interests	0	29	29	29	29						
Total equity	2,271	2,823	3,787	4,813	6,132						
Net debt (Adj)	-1,576	-2,533	-1,642	-2,127	-2,630						
Net debt to equity (Adj) (%)	-69.4	-89.7	-43.3	-44.2	-42.9						

For definitions of the items in this table, please click [here](#).



# Bull/Bear: Elm Company (7203.SE)

## Bull/Bear: Elm Company (7203.SE)

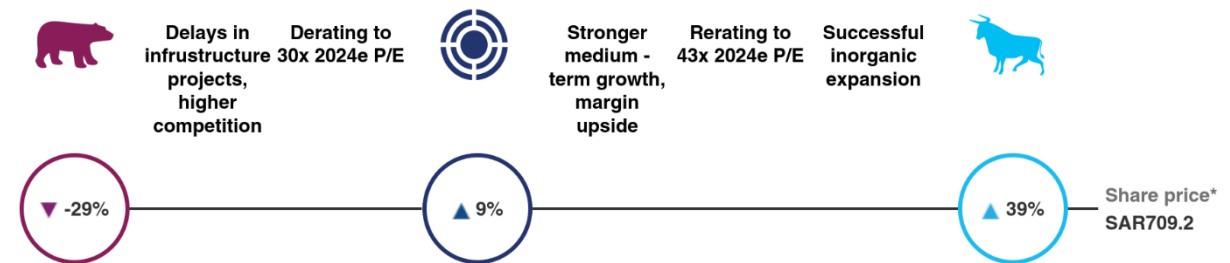
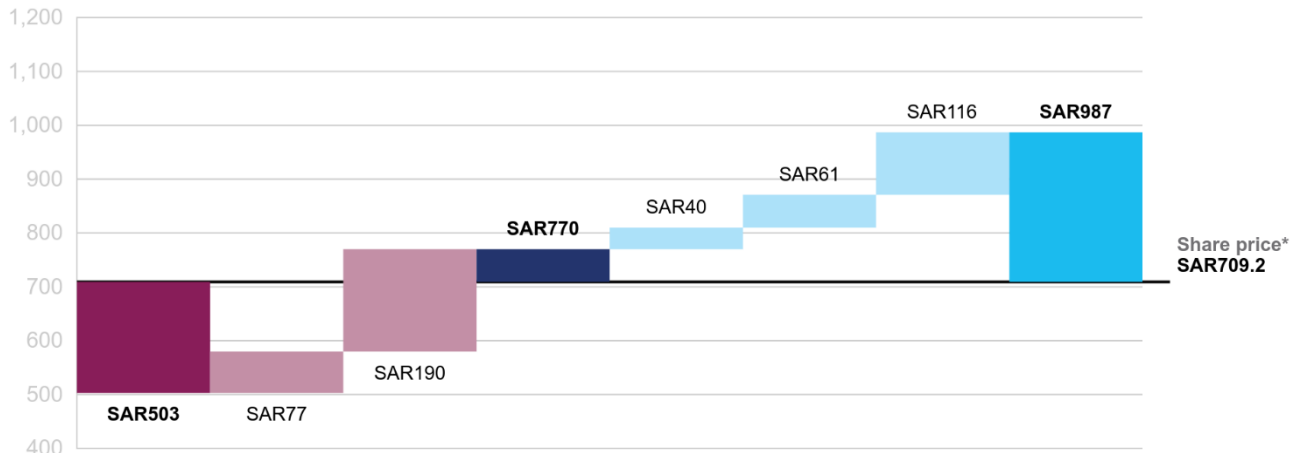


SAR,770 target price

9% expected share price return

Neutral rating

68pp Bull/Bear Spread



Source: Citi Research

\*Share price as of 9 Nov 2023 15:00



SAR987

- Stronger medium-term growth, margin upside
- Re-rating to 43x 2024e P/E
- Accelerated consolidation, M&A integration



SAR770

- ~20% revenue CAGR in medium-term
- Target 40x 2024e P/E



SAR503

- Delays in infrastructure projects, higher competition
- Derating to 30x 2024e P/E

# Bull/Bear: Solutions (7202.SE)

## Bull/Bear: Solutions (7202.SE)

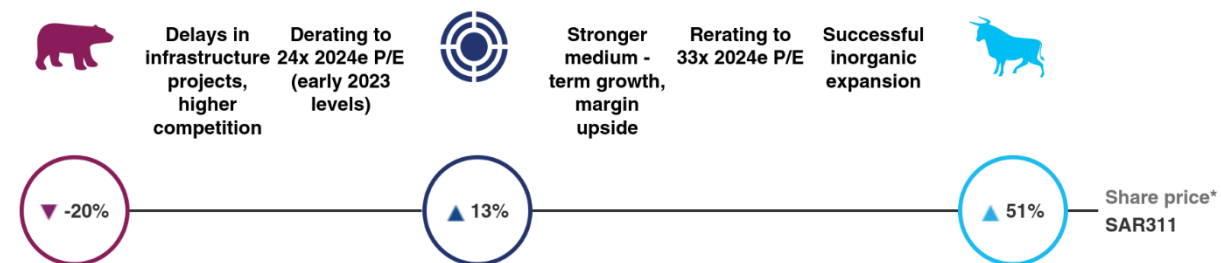
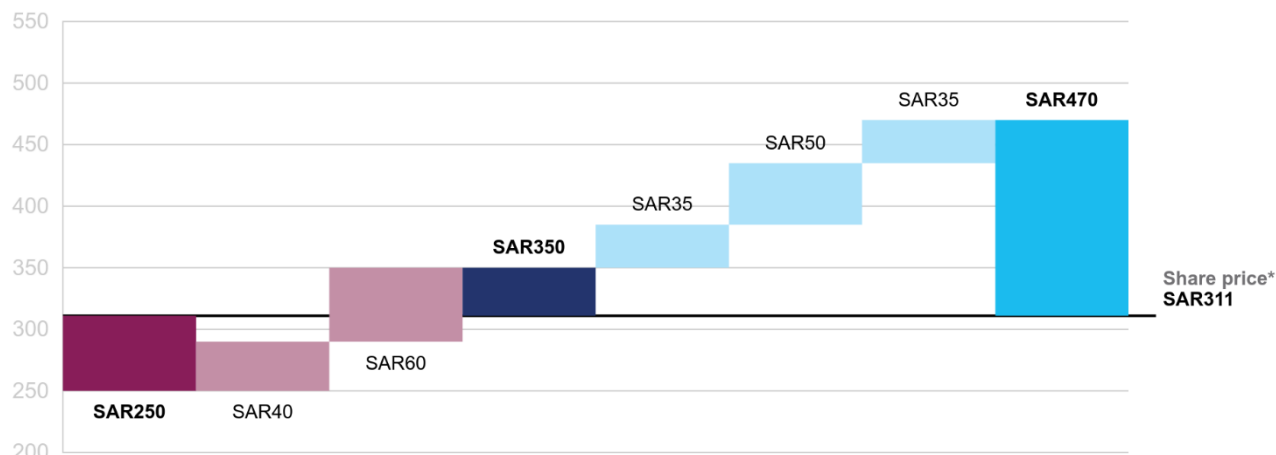


SAR,350 target price

13% expected share price return

Neutral rating

71pp Bull/Bear Spread



Source: Citi Research

\*Share price as of 9 Nov 2023 15:00



SAR470

- Stronger medium-term growth, margin upside
- Derating to 33x 2024e P/E
- Successful M&A integration and accelerated consolidation



SAR350

- Underlying revenue growth ~12% in medium-term
- Target 30x 2024e P/E



SAR250

- Delays in infrastructure projects, higher competition
- Derating to 24x 2024e P/E

## Elm Company

### Company description

Established in 1988 as research company specialized in importing and localizing technology (mainly for the Ministry of Interior), Elm has transformed and expanded its business into consulting, IT services, government process outsourcing and training, offering solutions to both private and government entities. Elm offers services across (1) Digital businesses, including product suite (e.g., verification platform, visa managements, e-government services), (2) Business Process Outsourcing, and (3) Professional services / consulting business.

### Investment strategy

We rate Elm Neutral. Elm is one of leading players in the Saudi ICT market focus on providing digital solutions (3/4 of revenues) with significant potential in BPO and consulting (1/4 of revenues). As a state-owned company, we see it well-positioned to benefit from e-government development via Elm's product suite (e.g. Yakeen, Absher) and new areas, including tourism (e.g., via Nusuk). With solid net cash position, we think Elm may pursue expansion via M&A both in KSA and other MENA countries. At the same time, we think risk reward is more balanced now after strong re-rating.

### Valuation

We derive our SAR 770 TP using an average of our P/E multiples valuation of SAR 773 (expecting the stock to trade at 40x 2024e P/E) and DCF-based valuation of SAR 755. For DCF, we use a WACC of 8.5% and TGR of 4.5% with a terminal year EBITDA margin of 26%.

### Risks

Key downside risks include: (1) Macro and economic risks, including downside risks to oil prices and slower economic growth on the back of production cuts; (2) overhand risks (PIF owns 67% of Elm's shares, share price 450% above IPO price); (3) Concentration of government and semi-government customers; (4) Delays or cutback of mega projects budgets may also drive downside to future growth of IT services industry; (5) Workforce supply constraints; (6) Competition; and (7) Risks related to accounting estimates and assumptions and revenue recognition.

Key upside risks include: (1) More active inorganic consolidation, particularly in digital products, new growth areas, AI-related products; (2) Stronger macro, including upside risks to oil prices; and (3) Faster-than-expected realization of mega projects and the number of contracts won by Elm.

## Solutions

### Company description

Established in 2002 as ICT operational arm of Saudi Telecom, Solutions emerged as the leading ITC services provider with a 18.8% market share in the KSA IT services market. Solutions offers services across several

segments: (1) Core ICT services, including systems integration, communications and internet, (2) Information Technology services and managed operational services, (3) Digital services, including cloud services and cybersecurity integration.

## Investment strategy

We rate Solutions as Neutral. We continue to see Solutions, a leading IT services provider in KSA, as a structural play on digital transformation and ICT market consolidation. At the same time, we think the market will be focused on M&A integration near term, and the room for positive surprises in terms of organic growth is rather limited. We forecast Solutions to post ~14% EBITDA CAGR in 2022-2026.

## Valuation

We derive our SAR 350 TP using an average of our P/E multiple valuation of SAR 356 (expecting the stock to trade at 30x 2024e P/E) and DCF-based valuation of SAR 343. For DCF, we use a WACC of 8.5% and TGR of 3% with a terminal year EBITDA margin of 15.5%.

## Risks

Key downside risks to our investment thesis and achieving our TP include: (1) Macro and economic risks, including downside risks to oil prices; (2) M&A execution risk; (3) Concentration of government and semi-government customers and possible delays or cutback of mega projects budgets may also drive downside to future growth of IT services industry; (4) Workforce supply constraints; (5) Competition; and (6) Risks related to accounting estimates and assumptions and revenue recognition.

Key upside risks: (1) Stronger macro, including upside risks to oil; (2) Stronger M&A integration execution; and (3) Upside to organic growth from a higher number of contracts won.

If you are visually impaired and would like to speak to a Citi representative regarding the details of the graphics in this document, please call USA 1-888-800-5008 (TTY: 711), from outside the US +1-210-677-3788

## Appendix A-1

### ANALYST CERTIFICATION

The research analysts primarily responsible for the preparation and content of this research report are either (i) designated by "AC" in the author block or (ii) listed in bold alongside content which is attributable to that analyst. If multiple AC analysts are designated in the author block, each analyst is certifying with respect to the entire research report other than (a) content attributable to another AC certifying analyst listed in bold alongside the content and (b) views expressed solely with respect to a specific issuer which are attributable to another AC certifying analyst identified in the price charts or rating history tables for that issuer shown below. Each of these analysts certify, with respect to the sections of the report for which they are responsible: (1) that the views expressed therein accurately reflect their personal views about each issuer and security referenced and were prepared in an independent manner, including with respect to Citigroup Global Markets Inc. and its affiliates; and (2) no part of the research analyst's compensation was, is, or will be, directly or indirectly, related to the specific recommendations or views expressed by that research analyst in this report.

### IMPORTANT DISCLOSURES

#### Elm Company (7203.SE)

Ratings and Target Price History  
Fundamental Research

Analyst: Maksim Nekrasov



	Date	Rating	Target Price	Closing Price
1	17-Jan-23 00:00:00	*1	*403.00	335.00
2	15-Mar-23 15:57:24	1	*483.00	405.80

\*Indicates Change

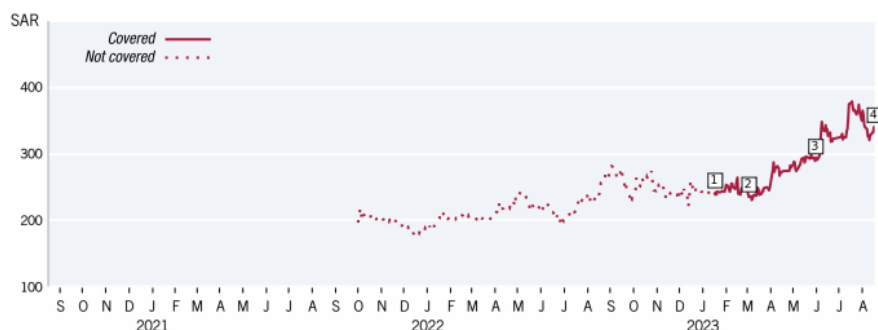
	Date	Rating	Target Price	Closing Price
3	30-May-23 16:00:00	1	*522.00	458.00
4	16-Aug-23 02:12:40	*2	*760.00	712.00

Rating/target price changes above reflect Eastern Time

#### Solutions (7202.SE)

Ratings and Target Price History  
Fundamental Research

Analyst: Maksim Nekrasov



	Date	Rating	Target Price	Closing Price
1	17-Jan-23 00:00:00	*1	*314.00	241.60
2	02-Mar-23 13:14:39	1	*311.00	235.20

\*Indicates Change

	Date	Rating	Target Price	Closing Price
3	30-May-23 16:00:00	*2	*318.00	291.40
4	16-Aug-23 02:12:40	2	*360.00	340.00

Rating/target price changes above reflect Eastern Time

The Firm has made a market in the publicly traded equity securities of Amdocs Ltd on at least one occasion since 1 Jan 2022.

The Firm has made a market in the publicly traded equity securities of Cognizant Technology Solutions Corp on at least one occasion since 1 Jan 2021.

The Firm has made a market in the publicly traded equity securities of Epam Systems Inc on at least one occasion since 1 Jan 2022.

The Firm has made a market in the publicly traded equity securities of Accenture PLC on at least one occasion since 1 Jan 2022.

The Firm has made a market in the publicly traded equity securities of Jarir Marketing Company SJSC on at least one occasion since 1 Jan 2022.

The Firm has made a market in the publicly traded equity securities of Saudi Telecom Company SJSC on at least one occasion since 1 Jan 2022.

The Firm has made a market in the publicly traded equity securities of Netcompany Group A/S on at least one occasion since 1 Jan 2022.

The Firm has made a market in the publicly traded equity securities of Saudi Awwal Bank SJSC on at least one occasion since 1 Jan 2022.

The Firm has made a market in the publicly traded equity securities of Al Rajhi Banking & Investment Corporation SJSC on at least one occasion since 1 Jan 2022.

The Firm has made a market in the publicly traded equity securities of Riyadh Bank SJSC on at least one occasion since 1 Jan 2022.

The Firm has made a market in the publicly traded equity securities of Saudi National Bank SJSC on at least one occasion since 1 Jan 2022.

The Firm has made a market in the publicly traded equity securities of Banque Saudi Fransi SJSC on at least one occasion since 1 Jan 2022.

The Firm has made a market in the publicly traded equity securities of Mouwasat Medical Services Company SJSC on at least one occasion since 1 Jan 2022.

The Firm has made a market in the publicly traded equity securities of Capgemini SE on at least one occasion since 1 Jan 2022.

Citigroup Global Markets Inc. or its affiliates has a net short position of 0.5% or more of any class of common equity securities of Accenture Ltd.

Within the past 12 months, Citigroup Global Markets Inc. or its affiliates has acted as manager or co-manager of an offering of securities of Banque Saudi Fransi, Saudi Aramco Base Oil Company JSC.

Citigroup Global Markets Inc. owns a position of 1 million USD or more in the debt securities of Accenture Ltd, Cognizant.

Citigroup Global Markets Inc. or its affiliates has received compensation for investment banking services provided within the past 12 months from ACWA Power, Al Rajhi Bank, Almarai, Amdocs Ltd, Banque Saudi Fransi, Capgemini SE, Emirates Telecommunications Group Company PJSC, Genpact Ltd, Riyadh Bank, Saudi Aramco Base Oil Company JSC, Saudi Awwal Bank, Saudi Kayan Petrochemical Co, Saudi National Bank, Saudi Tadawul Group Holding, Saudi Telecom Company, Tata Consultancy Services, Yanbu National Petrochemical Co.

Citigroup Global Markets Inc. or its affiliates expects to receive or intends to seek, within the next three months, compensation for investment banking services from Emirates Telecommunications Group Company PJSC, Saudi Aramco Base Oil Company JSC, Saudi Kayan Petrochemical Co, Saudi National Bank, Saudi Tadawul Group Holding, Saudi Telecom Company, Yanbu National Petrochemical Co.

Citigroup Global Markets Inc. or its affiliates received compensation for products and services other than investment banking services from ACWA Power, Accenture Ltd, Al Rajhi Bank, Alinma Bank, Almarai, Amdocs Ltd, Banque Saudi Fransi, Capgemini SE, Cognizant, EPAM Systems, Inc., Emirates Telecommunications Group Company PJSC, Endava, ExlService Holdings Inc, Genpact Ltd, HCL Technologies, Infosys, Locaweb, Riyadh Bank, Saudi Aramco Base Oil Company JSC, Saudi Awwal Bank, Saudi Kayan Petrochemical Co, Saudi National Bank, Saudi Tadawul Group Holding, Saudi Telecom Company, TOTVS, Tata Consultancy Services, WNS Holdings Ltd, Wipro, Yanbu National Petrochemical Co in the past 12 months.

Citigroup Global Markets Inc. or its affiliates currently has, or had within the past 12 months, the following as investment banking client(s): ACWA Power, Al Rajhi Bank, Almarai, Amdocs Ltd, Banque Saudi Fransi, Capgemini SE, Emirates Telecommunications Group Company PJSC, Genpact Ltd, Riyadh Bank, Saudi Aramco Base Oil Company JSC, Saudi Awwal Bank, Saudi Kayan Petrochemical Co, Saudi National Bank, Saudi Tadawul Group Holding, Saudi Telecom Company, Tata Consultancy Services, Yanbu National Petrochemical Co.

Citigroup Global Markets Inc. or its affiliates currently has, or had within the past 12 months, the following as clients, and the services provided were non-investment-banking, securities-related: ACWA Power, Accenture Ltd, Al Rajhi Bank, Almarai, Amdocs Ltd, Banque Saudi Fransi, Capgemini SE, Cognizant, EPAM Systems, Inc., Emirates Telecommunications Group Company PJSC, Endava, ExlService Holdings Inc, Genpact Ltd, HCL Technologies, Infosys, Locaweb, Riyadh Bank, Saudi Aramco Base Oil Company JSC, Saudi Awwal Bank, Saudi Kayan Petrochemical Co, Saudi National Bank, Saudi Tadawul Group Holding, Saudi Telecom Company, TOTVS, Tata Consultancy Services, WNS Holdings Ltd, Wipro, Yanbu National Petrochemical Co.

Citigroup Global Markets Inc. or its affiliates currently has, or had within the past 12 months, the following as clients, and the services provided were non-investment-banking, non-securities-related: ACWA Power, Accenture Ltd, Al Rajhi Bank, Alinma Bank, Almarai, Amdocs Ltd, Banque Saudi Fransi, Capgemini SE, Cognizant, EPAM Systems, Inc., Emirates Telecommunications Group Company PJSC, Endava, ExlService Holdings Inc, Genpact Ltd, HCL Technologies, Infosys, Locaweb, Riyadh Bank, Saudi Aramco Base Oil Company JSC, Saudi Awwal Bank, Saudi Kayan Petrochemical Co, Saudi National Bank, Saudi Tadawul Group Holding, Saudi Telecom Company, TOTVS, Tata Consultancy Services, WNS Holdings Ltd, Wipro, Yanbu National Petrochemical Co.

Citigroup Global Markets Inc. and/or its affiliates has a significant financial interest in relation to Accenture Ltd, Amdocs Ltd, Banque Saudi Fransi, Capgemini SE, Cognizant, EPAM Systems, Inc., Emirates Telecommunications Group Company PJSC, ExlService Holdings Inc, Saudi Aramco Base Oil Company JSC, Saudi National Bank, Saudi Tadawul Group Holding, Saudi Telecom Company, Tata Consultancy Services, WNS Holdings Ltd, Wipro, Yanbu National Petrochemical Co. (For an explanation of the determination of significant financial interest, please refer to the policy for managing conflicts of interest which can be found at [www.citiVelocity.com](http://www.citiVelocity.com).)

Analysts' compensation is determined by Citi Research management and Citigroup's senior management and is based upon activities and services intended to benefit the investor clients of Citigroup Global Markets Inc. and its affiliates (the "Firm"). Compensation is not linked to specific transactions or recommendations. Like all Firm employees, analysts receive compensation that is impacted by overall Firm profitability which includes investment banking, sales and trading, and principal trading revenues. One factor in equity research analyst compensation is arranging corporate access events between institutional clients and the management teams of covered companies. Typically, company management is more likely to participate when the analyst has a positive view of the company.

For financial instruments recommended in the Product in which the Firm is not a market maker, the Firm is a liquidity provider in such financial instruments (and any underlying instruments) and may act as principal in connection with transactions in such instruments. The Firm is a regular issuer of traded financial instruments linked to securities that may have been recommended in the Product. The Firm regularly trades in the securities of the issuer(s) discussed in the Product. The Firm may engage in securities transactions in a manner inconsistent with the Product and, with respect to securities covered by the Product, will buy or sell from customers on a principal basis.

The Firm is a market maker in the publicly traded equity securities of Accenture Ltd, Al Rajhi Bank, Amdocs Ltd, Banque Saudi Fransi, Capgemini SE, EPAM Systems, Inc., Jarir Marketing Company, Mouwasat Medical Services, Netcompany, Riyadh Bank, Saudi Awwal Bank, Saudi National Bank, Saudi Telecom Company.

Unless stated otherwise neither the Research Analyst nor any member of their team has viewed the material operations of the Companies for which an investment view has been provided within the past 12 months.



For important disclosures (including copies of historical disclosures) regarding the companies that are the subject of this Citi Research product ("the Product"), please contact Citi Research, 388 Greenwich Street, 6th Floor, New York, NY, 10013, Attention: Legal/Compliance [E6WYB6412478]. In addition, the same important disclosures, with the exception of the Valuation and Risk assessments and historical disclosures, are contained on the Firm's disclosure website at [https://www.citivelocity.com/cvr/eppublic/citi\\_research\\_disclosures](https://www.citivelocity.com/cvr/eppublic/citi_research_disclosures). Valuation and Risk assessments can be found in the text of the most recent research note/report regarding the subject company. Pursuant to the Market Abuse Regulation a history of all Citi Research recommendations published during the preceding 12-month period can be accessed via Citi Velocity (<https://www.citivelocity.com/cv2>) or your standard distribution portal. Historical disclosures (for up to the past three years) will be provided upon request.

#### Citi Research Equity Ratings Distribution

Data current as of 30 Sep 2023	12 Month Rating			Catalyst Watch		
	Buy	Hold	Sell	Buy	Hold	Sell
Citi Research Global Fundamental Coverage (Neutral=Hold)	56%	35%	10%	32%	53%	15%
% of companies in each rating category that are investment banking clients	48%	50%	35%	53%	44%	45%

#### Guide to Citi Research Fundamental Research Investment Ratings:

Citi Research stock recommendations include an investment rating and an optional risk rating to highlight high risk stocks.

**Risk rating** takes into account both price volatility and fundamental criteria. Stocks will either have no risk rating or a High risk rating assigned.

**Investment Ratings:** Citi Research investment ratings are Buy, Neutral and Sell. Our ratings are a function of analyst expectations of expected total return ("ETR") and risk. ETR is the sum of the forecast price appreciation (or depreciation) plus the dividend yield for a stock within the next 12 months. The target price is based on a 12 month time horizon. The Investment rating definitions are: Buy (1) ETR of 15% or more or 25% or more for High risk stocks; and Sell (3) for negative ETR. Any covered stock not assigned a Buy or a Sell is a Neutral (2). For stocks rated Neutral (2), if an analyst believes that there are insufficient valuation drivers and/or investment catalysts to derive a positive or negative investment view, they may elect with the approval of Citi Research management not to assign a target price and, thus, not derive an ETR. Citi Research may suspend its rating and target price and assign "Rating Suspended" status for regulatory and/or internal policy reasons. Citi Research may also suspend its rating and target price and assign "Under Review" status for other exceptional circumstances (e.g. lack of information critical to the analyst's thesis, trading suspension) affecting the company and/or trading in the company's securities. In both such situations, the rating and target price will show as "—" and "—" respectively in the rating history price chart. Prior to 11 April 2022 Citi Research assigned "Under Review" status to both situations and prior to 11 Nov 2020 only in exceptional circumstances. As soon as practically possible, the analyst will publish a note re-establishing a rating and investment thesis. Investment ratings are determined by the ranges described above at the time of initiation of coverage, a change in investment and/or risk rating, or a change in target price (subject to limited management discretion). At times, the expected total returns may fall outside of these ranges because of market price movements and/or other short-term volatility or trading patterns. Such interim deviations will be permitted but will become subject to review by Research Management. Your decision to buy or sell a security should be based upon your personal investment objectives and should be made only after evaluating the stock's expected performance and risk.

#### Catalyst Watch Upside/Downside calls:

Citi Research may also include a Catalyst Watch Upside or Downside call to highlight specific near-term catalysts or events impacting the company or the market that are expected to influence the share price over a specified period of 30 or 90 days. A Catalyst Watch Upside (Downside) call indicates that the analyst expects the share price to rise (fall) in absolute terms over the specified period. A Catalyst Watch Upside/Downside call will automatically expire at the end of the specified 30/90 day period (or earlier if the investment rating of the company is assigned Rating Suspended or Under Review status); the analyst may also close a Catalyst Watch call prior to the end of the specified period in a published research note. A Catalyst Watch Upside or Downside call may be different from and does not affect a stock's fundamental equity rating, which reflects a longer-term total absolute return expectation. For purposes of FINRA ratings[1]distribution-disclosure rules, a Catalyst Watch Upside call corresponds to a buy recommendation and a Catalyst Watch Downside call corresponds to a sell recommendation. Any stock not assigned to a Catalyst Watch Upside or Catalyst Watch Downside call is considered Catalyst Watch Non-Rated (CWNR). For purposes of FINRA ratings-distribution-disclosure rules, we correspond CWNR to Hold in our ratings distribution table for our Catalyst Watch Upside/Downside rating system. However, we reiterate that we do not consider CWNR to be a recommendation. For all Catalyst Watch Upside/Downside calls, risk exists that the catalyst(s) and associated share-price movement will not materialize as expected.

#### RESEARCH ANALYST AFFILIATIONS / NON-US RESEARCH ANALYST DISCLOSURES

The legal entities employing the authors of this report are listed below (and their regulators are listed further herein). Non-US research analysts who have prepared this report (i.e., all research analysts listed below other than those identified as employed by Citigroup Global Markets Inc.) are not registered/qualified as research analysts with FINRA. Such research analysts may not be associated persons of the member organization (but are employed by an affiliate of the member organization) and therefore may not be subject to the FINRA Rule 2241 restrictions on communications with a subject company, public appearances and trading securities held by a research analyst account.

Citigroup Global Markets Limited

Maksim Nekrasov

#### OTHER DISCLOSURES

Any price(s) of instruments mentioned in recommendations are as of the prior day's market close on the primary market for the instrument, unless otherwise stated.

The completion and first dissemination of any recommendations made within this research report are as of the Eastern date-time displayed at the top of the Product. If the Product references views of other analysts then please refer to the price chart or rating history table for the date/time of completion and first dissemination with respect to that view.

Regulations in various jurisdictions require that where a recommendation differs from any of the author's previous recommendations concerning the same financial instrument or issuer that has been published during the preceding 12-month period that the change(s) and the date of that previous recommendation are indicated. For fundamental coverage please refer to the price chart or rating change history within this disclosure appendix or the issuer disclosure summary at [https://www.citivelocity.com/cvr/eppublic/citi\\_research\\_disclosures](https://www.citivelocity.com/cvr/eppublic/citi_research_disclosures).

Citi Research has implemented policies for identifying, considering and managing potential conflicts of interest arising as a result of publication or distribution of investment research. A description of these policies can be found at [https://www.citivelocity.com/cvr/eppublic/citi\\_research\\_disclosures](https://www.citivelocity.com/cvr/eppublic/citi_research_disclosures).

The proportion of all Citi Research research recommendations that were the equivalent to "Buy", "Hold", "Sell" at the end of each quarter over the prior 12 months (with the % of these that had received investment firm services from Citi in the prior 12 months shown in brackets) is as follows: Q3 2023 Buy 32%

(64%), Hold 44% (54%), Sell 23% (47%), RV 0.5% (89%); Q2 2023 Buy 33% (66%), Hold 43% (56%), Sell 23% (48%), RV 0.5% (88%); Q1 2023 Buy 33% (65%), Hold 43% (55%), Sell 23% (51%), RV 0.5% (86%); Q4 2022 Buy 33% (64%), Hold 43% (55%), Sell 23% (51%), RV 0.6% (91%). For the purposes of disclosing recommendations other than for equity (whose definitions can be found in the corresponding disclosure sections), "Buy" means a positive directional trade idea; "Sell" means a negative directional trade idea; and "Relative Value" means any trade idea which does not have a clear direction to the investment strategy.

European regulations require a 5 year price history when past performance of a security is referenced. CitiVelocity's Charting Tool ([https://www.citivelocity.com/cv2/#go/CHARTING\\_3\\_Equities](https://www.citivelocity.com/cv2/#go/CHARTING_3_Equities)) provides the facility to create customisable price charts including a five year option. This tool can be found in the Data & Analytics section under any of the asset class menus in CitiVelocity (<https://www.citivelocity.com/>). For further information contact CitiVelocity support ([https://www.citivelocity.com/cv2/go/CLIENT\\_SUPPORT](https://www.citivelocity.com/cv2/go/CLIENT_SUPPORT)). The source for all referenced prices, unless otherwise stated, is DataCentral, which sources price information from Thomson Reuters. Past performance is not a guarantee or reliable indicator of future results. Forecasts are not a guarantee or reliable indicator of future performance.

Investors should always consider the investment objectives, risks, and charges and expenses of an ETF carefully before investing. The applicable prospectus and key investor information document (as applicable) for an ETF should contain this and other information about such ETF. It is important to read carefully any such prospectus before investing. Clients may obtain prospectuses and key investor information documents for ETFs from the applicable distributor or authorized participant, the exchange upon which an ETF is listed and/or from the applicable website of the applicable ETF issuer. The value of the investments and any accruing income may fall or rise. Any past performance, prediction or forecast is not indicative of future or likely performance. Any information on ETFs contained herein is provided strictly for illustrative purposes and should not be deemed an offer to sell or a solicitation of an offer to purchase units of any ETF either explicitly or implicitly. The opinions expressed are those of the authors and do not necessarily reflect the views of ETF issuers, any of their agents or their affiliates.

Citigroup Global Markets India Private Limited and/or its affiliates may have, from time to time, actual or beneficial ownership of 1% or more in the debt securities of the subject issuer.

Please be advised that pursuant to Executive Order 13959 as amended (the "Order"), U.S. persons are prohibited from investing in securities of any company determined by the United States Government to be the subject of the Order. This research is not intended to be used or relied upon in any way that could result in a violation of the Order. Investors are encouraged to rely upon their own legal counsel for advice on compliance with the Order and other economic sanctions programs administered and enforced by the Office of Foreign Assets Control of the U.S. Treasury Department.

This communication is directed at persons who are "Eligible Clients" as such term is defined in the Israeli Regulation of Investment Advice, Investment Marketing and Investment Portfolio Management law, 1995 (the "Advisory Law"). Within Israel, this communication is not intended for retail clients and Citi will not make such products or transactions available to retail clients. The presenter is not licensed as investment advisor or marketer by the Israeli Securities Authority ("ISA") and this communication does not constitute investment or marketing advice. The information contained herein may relate to matters that are not regulated by the ISA. Any securities which are the subject of this communication may not be offered or sold to any Israeli person except pursuant to an exemption from the Israeli public offering rules, including according to the Israeli Securities Law.

Citi Research broadly and simultaneously disseminates its research content to the Firm's institutional and retail clients via the Firm's proprietary electronic distribution platforms (e.g., Citi Velocity and various Global Wealth platforms). As a convenience, certain, but not all, research content may be distributed through third party aggregators. Clients may receive published research reports by email, on a discretionary basis, and only after such research content has been broadly disseminated. Certain research is made available only to institutional investors to satisfy regulatory requirements. The level and types of services provided by Citi Research analysts to clients may vary depending on various factors such as the client's individual preferences as to the frequency and manner of receiving communications from analysts, the client's risk profile and investment focus and perspective (e.g. market-wide, sector specific, long term, short-term etc.), the size and scope of the overall client relationship with the Firm and legal and regulatory constraints.

Pursuant to Comissão de Valores Mobiliários Resolução 20 and ASIC Regulatory Guide 264, Citi is required to disclose whether a Citi related company or business has a commercial relationship with the subject company. Considering that Citi operates multiple businesses in more than 100 countries around the world, it is likely that Citi has a commercial relationship with the subject company.

**Disclosure for investors in the Republic of Turkey:** Under Capital Markets Law of Turkey (Law No: 6362), the investment information, comments and recommendations stated here, are not within the scope of investment advisory activity. Investment advisory service is provided in accordance with a contract of engagement on investment advisory concluded between brokerage houses, portfolio management companies, non-deposit banks and clients. Comments and recommendations stated here rely on the individual opinions of the ones providing these comments and recommendations. These opinions may not fit to your financial status, risk and return preferences. For this reason, to make an investment decision by relying solely to this information stated here may not bring about outcomes that fit your expectations. Furthermore, Citi Research is a division of Citigroup Global Markets Inc. (the "Firm"), which does and seeks to do business with companies and/or trades on securities covered in this 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, however investors should also note that the Firm has in place organisational and administrative arrangements to manage potential conflicts of interest of this nature.

Securities recommended, offered, or sold by the Firm: (i) are not insured by the Federal Deposit Insurance Corporation; (ii) are not deposits or other obligations of any insured depository institution (including Citibank); and (iii) are subject to investment risks, including the possible loss of the principal amount invested. The Product is for informational purposes only and is not intended as an offer or solicitation for the purchase or sale of a security. Any decision to purchase securities mentioned in the Product must take into account existing public information on such security or any registered prospectus. Although information has been obtained from and is based upon sources that the Firm believes to be reliable, we do not guarantee its accuracy and it may be incomplete and condensed. Note, however, that the Firm has taken all reasonable steps to determine the accuracy and completeness of the disclosures made in the Important Disclosures section of the Product. The Firm's research department has received assistance from the subject company(ies) referred to in this Product including, but not limited to, discussions with management of the subject company(ies). Firm policy prohibits research analysts from sending draft research to subject companies. However, it should be presumed that the author of the Product has had discussions with the subject company to ensure factual accuracy prior to publication. Statements and views concerning ESG (environmental, social, governance) factors are typically based upon public statements made by the affected company or other public news, which the author may not have independently verified. ESG factors are one consideration that investors may choose to examine when making investment decisions. All opinions, projections and estimates constitute the judgment of the author as of the date of the Product and these, plus any other information contained in the Product, are subject to change without notice. Prices and availability of financial instruments also are subject to change without notice. Notwithstanding other departments within the Firm advising the companies



discussed in this Product, information obtained in such role is not used in the preparation of the Product. Although Citi Research does not set a predetermined frequency for publication, if the Product is a fundamental equity or credit research report, it is the intention of Citi Research to provide research coverage of the covered issuers, including in response to news affecting the issuer. For non-fundamental research reports, Citi Research may not provide regular updates to the views, recommendations and facts included in the reports. Notwithstanding that Citi Research maintains coverage on, makes recommendations concerning or discusses issuers, Citi Research may be periodically restricted from referencing certain issuers due to legal or policy reasons. Where a component of a published trade idea is subject to a restriction, the trade idea will be removed from any list of open trade ideas included in the Product. Upon the lifting of the restriction, the trade idea will either be re-instated in the open trade ideas list if the analyst continues to support it or it will be officially closed. Citi Research may provide different research products and services to different classes of customers (for example, based upon long-term or short-term investment horizons) that may lead to differing conclusions or recommendations that could impact the price of a security contrary to the recommendations in the alternative research product, provided that each is consistent with the rating system for each respective product.

Investing in non-U.S. securities, including ADRs, may entail certain risks. The securities of non-U.S. issuers may not be registered with, nor be subject to the reporting requirements of the U.S. Securities and Exchange Commission. There may be limited information available on foreign securities. Foreign companies are generally not subject to uniform audit and reporting standards, practices and requirements comparable to those in the U.S. Securities of some foreign companies may be less liquid and their prices more volatile than securities of comparable U.S. companies. In addition, exchange rate movements may have an adverse effect on the value of an investment in a foreign stock and its corresponding dividend payment for U.S. investors. Net dividends to ADR investors are estimated, using withholding tax rates conventions, deemed accurate, but investors are urged to consult their tax advisor for exact dividend computations. Investors who have received the Product from the Firm may be prohibited in certain states or other jurisdictions from purchasing securities mentioned in the Product from the Firm. Please ask your Financial Consultant for additional details. Citigroup Global Markets Inc. takes responsibility for the Product in the United States. Any orders by US investors resulting from the information contained in the Product may be placed only through Citigroup Global Markets Inc.

**Important Disclosures for Bell Potter Customers:** Bell Potter is making this Product available to its clients pursuant to an agreement with Citigroup Global Markets Australia Pty Limited. Neither Citigroup Global Markets Australia Pty Limited nor any of its affiliates has made any determination as to the suitability of the information provided herein and clients should consult with their Bell Potter financial advisor before making any investment decision.

**The Citigroup legal entity that takes responsibility for the production of the Product is the legal entity which the first named author is employed by.**

The Product is made available in **Australia** through Citigroup Global Markets Australia Pty Limited. (ABN 64 003 114 832 and AFSL No. 240992), participant of the ASX Group and regulated by the Australian Securities & Investments Commission. Citigroup Centre, 2 Park Street, Sydney, NSW 2000. Citigroup Global Markets Australia Pty Limited is not an Authorised Deposit-Taking Institution under the Banking Act 1959, nor is it regulated by the Australian Prudential Regulation Authority.

The Product is made available in **Brazil** by Citigroup Global Markets Brasil - CCTVM SA, which is regulated by CVM - Comissão de Valores Mobiliários ("CVM"), BACEN - Brazilian Central Bank, APIMEC - Associação dos Analistas e Profissionais de Investimento do Mercado de Capitais and ANBIMA - Associação Brasileira das Entidades dos Mercados Financeiro e de Capitais. Av. Paulista, 1111 - 14º andar(parte) - CEP: 01311920 - São Paulo - SP.

This Product is being made available in **Canada** by Citigroup Global Markets (Canada) Inc. ("CGM Canada"). Citigroup Place, 123 Front Street West, Toronto, Ontario M5J 2M3.

This Product is available in **Chile** through Banchile Corredores de Bolsa S.A., an indirect subsidiary of Citigroup Inc., which is regulated by the Comisión Para El Mercado Financiero. Agustinas 975, piso 2, Santiago, Chile.

**Disclosure for investors in the Republic of Colombia :** This communication or message does not constitute a professional recommendation to make investment in the terms of article 2.40.1.1.2 of Decree 2555 de 2010 or the regulations that modify, substitute or complement it. Para la elaboración y distribución de informes de investigación y de comunicaciones generales de que trata este artículo no se requiere ser una entidad vigilada por la Superintendencia Financiera de Colombia.

The Product is made available in **Germany** by Citigroup Global Markets Europe AG ("CGME"), which is regulated by the European Central Bank and the German Federal Financial Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht BaFin). CGME, Reuterweg 16, 60323 Frankfurt am Main.

Unless otherwise specified, if the analyst who prepared this report is based in Hong Kong and it relates to "securities" (as defined in the Securities and Futures Ordinance (Cap.571 of the Laws of Hong Kong)), the report is issued in Hong Kong by Citigroup Global Markets Asia Limited. Citigroup Global Markets Asia Limited is regulated by Hong Kong Securities and Futures Commission. If the report is prepared by a non-Hong Kong based analyst, please note that such analyst (and the legal entity that the analyst is employed by or accredited to) is not licensed/registered in Hong Kong and they do not hold themselves out as such. Please refer to the section "Research Analyst Affiliations / Non-US Research Analyst Disclosures" for the details of the employment entity of the analysts.

The Product is made available in **India** by Citigroup Global Markets India Private Limited (CGM), which is regulated by the Securities and Exchange Board of India (SEBI), as a Research Analyst (SEBI Registration No. INH000000438). CGM is also actively involved in the business of merchant banking (SEBI Registration No. INM000010718) and stock brokerage ((SEBI Registration No. INZ0000263033) in India, and is registered with SEBI in this regard.

Registration granted by SEBI and certification from National Institute of Securities Markets (NISM) in no way guarantee performance of the intermediary or provide any assurance of returns to investors. CGM's registered office is at 1202, 12th Floor, First International Financial Centre (FIFC), G Block, Bandra Kurla Complex, Bandra East, Mumbai – 400098. CGM's Corporate Identity Number is U99999MH2000PTC126657, and its Compliance Officer [Vishal Bohra] contact details are: Tel: +91-022-61759994, Fax: +91-022-61759851, Email: cgmcompliance@citi.com. The Investor Charter in respect of Research Analysts and Complaints information can be found at [https://www.citivelocity.com/cvr/eppublic/citi\\_research\\_disclosures](https://www.citivelocity.com/cvr/eppublic/citi_research_disclosures). The grievance officer [Nikita Jadhav] contact details are Tel: +91-022-42775089, Email: EMEA.CR.Complaints@citi.com. Investment in securities market are subject to market risks. Read all the related documents carefully before investing.

The Product is made available in **Indonesia** through PT Citigroup Securities Indonesia. Citibank Tower 10/F, Pacific Century Place, SCBD lot 10, Jl. Jend Sudirman Kav 52-53, Jakarta 12190, Indonesia. Neither this Product nor any copy hereof may be distributed in Indonesia or to any Indonesian citizens wherever they are domiciled or to Indonesian residents except in compliance with applicable capital market laws and regulations. This Product is not an offer of securities in Indonesia. The securities referred to in this Product have not been registered with the Capital Market and Financial Services Authority (OJK) pursuant to relevant capital market laws and regulations, and may not be offered or sold within the territory of the Republic of Indonesia or to Indonesian citizens through a public offering or in circumstances which constitute an offer within the meaning of the Indonesian capital market laws and regulations.

The Product is made available in **Israel** through Citibank NA, regulated by the Bank of Israel and the Israeli Securities Authority. Citibank, N.A, Azrieli Sarona Building, 121 Menachem Begin Street, Tel Aviv, Israel.

The Product is made available in **Japan** by Citigroup Global Markets Japan Inc. ("CGMJ"), which is regulated by Financial Services Agency, Securities and Exchange Surveillance Commission, Japan Securities Dealers Association, Tokyo Stock Exchange and Osaka Securities Exchange. Otemachi Park Building, 1-1-1 Otemachi, Chiyoda-ku, Tokyo 100-8132 Japan. If the Product was distributed by SMBC Nikko Securities Inc. it is being so distributed under license. In the event that an error is found in an CGMJ research report, a revised version will be posted on the Firm's Citi Velocity website. If you have questions regarding Citi Velocity, please call (81 3) 6270-3019 for help.

The Product is made available in the **Kingdom of Saudi Arabia** in accordance with Saudi laws through Citigroup Saudi Arabia, which is regulated by the Capital Market Authority (CMA) under CMA license (17184-31). 2239 Al Urubah Rd – Al Olaya Dist. Unit No. 18, Riyadh 12214 – 9597, Kingdom Of Saudi Arabia.

The Product is made available in **Korea** by Citigroup Global Markets Korea Securities Ltd. (CGMK), which is regulated by the Financial Services Commission, the Financial Supervisory Service and the Korea Financial Investment Association (KOFIA). The address of CGMK is Citibank Center, 50 Saemunan-ro, Jongno-gu, Seoul 03184, Korea. KOFIA makes available registration information of research analysts on its website. Please visit the following website if you wish to find KOFIA registration information on research analysts of CGMK. <http://dis.kofia.or.kr/webssquare/index.jsp?w2xPath=/wq/fundMgr/DISFundMgrAnalystList.xml&divisionId=MDIS03002002000000&serviceId=SDIS03002002000>. The Product is made available in Korea by Citibank Korea Inc., which is regulated by the Financial Services Commission and the Financial Supervisory Service. Address is Citibank Center, 50 Saemunan-ro, Jongno-gu, Seoul 03184, Korea. This research report is intended to be provided only to Professional Investors as defined in the Financial Investment Services and Capital Market Act and its Enforcement Decree in Korea.

The Product is made available in **Malaysia** by Citigroup Global Markets Malaysia Sdn Bhd (Registration No. 199801004692 (460819-D)) ("CGMM") to its clients and CGMM takes responsibility for its contents as regards CGMM's clients. CGMM is regulated by the Securities Commission of Malaysia. Please contact CGMM at Level 43 Menara Citibank, 165 Jalan Ampang, 50450 Kuala Lumpur, Malaysia in respect of any matters arising from, or in connection with, the Product.

The Product is made available in **Mexico** by Citibanamex Casa de Bolsa, S.A. De C. V., Casa de Bolsa, Integrante del Grupo Financiero Citibanamex which is a wholly owned subsidiary of Citigroup Inc. and is regulated by Comision Nacional Bancaria y de Valores. Actuario Roberto Medellín 800, Zedec Santa Fe, Álvaro Obregón, 01219 Ciudad de México, CDMX.

The Product is made available in **Poland** by Biuro Maklerskie Banku Handlowego (DMBH), separate department of Bank Handlowy w Warszawie S.A. a subsidiary of Citigroup Inc., which is regulated by Komisja Nadzoru Finansowego. Biuro Maklerskie Banku Handlowego (DMBH), ul.Senatorska 16, 00-923 Warszawa.

The Product is made available in the **Russian Federation** through AO Citibank, which is licensed to carry out banking activities in the Russian Federation in accordance with the general banking license, depositary services license and brokerage activities license issued by the Central Bank of the Russian Federation. Neither the Product nor any information contained in the Product shall be considered as advertising the securities mentioned in this report within the territory of the Russian Federation or outside the Russian Federation. The Product does not constitute an appraisal within the meaning of the Federal Law of the Russian Federation of 29 July 1998 No. 135-FZ (as amended) On Appraisal Activities in the Russian Federation. 8-10 Gasheka Street, 125047 Moscow.

The Product is made available in **Singapore** through Citigroup Global Markets Singapore Pte. Ltd. ("CGMSPL"), a capital markets services license holder, and regulated by Monetary Authority of Singapore. Please contact CGMSPL at 8 Marina View, 21st Floor Asia Square Tower 1, Singapore 018960, in respect of any matters arising from, or in connection with, the analysis of this document. This report is intended for recipients who are accredited, expert and institutional investors as defined under the Securities and Futures Act (Cap. 289). The Product is made available by The Citigroup Private Bank in Singapore through Citibank, N.A., Singapore Branch, a licensed bank in Singapore that is regulated by Monetary Authority of Singapore. Please contact your Private Banker in Citibank N.A., Singapore Branch if you have any queries on or any matters arising from or in connection with this document. This report is intended for recipients who are accredited, expert and institutional investors as defined under the Securities and Futures Act (Cap. 289). This report is distributed in Singapore by Citibank Singapore Ltd ("CSL") to selected Citigold/Citigold Private Clients. CSL provides no independent research or analysis of the substance or in preparation of this report. Please contact your Citigold/Citigold Private Client Relationship Manager in CSL if you have any queries on or any matters arising from or in connection with this report. This report is intended for recipients who are accredited investors as defined under the Securities and Futures Act (Cap. 289).

Citigroup Global Markets (Pty) Ltd. is incorporated in the **Republic of South Africa** (company registration number 2000/025866/07) and its registered office is at 145 West Street, Sandton, 2196, Saxonwold. Citigroup Global Markets (Pty) Ltd. is regulated by JSE Securities Exchange South Africa, South African Reserve Bank and the Financial Services Board. The investments and services contained herein are not available to private customers in South Africa.

The Product is made available in the **Republic of China (Taiwan)** through Citigroup Global Markets Taiwan Securities Company Ltd. ("CGMTS"), 14F, 15F and 16F, No. 1, Songzhi Road, Taipei 110, Taiwan, subject to the license scope and the applicable laws and regulations in the Republic of China (Taiwan). CGMTS is regulated by the Securities and Futures Bureau of the Financial Supervisory Commission of Taiwan, the Republic of China (Taiwan). No portion of the Product may be reproduced or quoted in the Republic of China (Taiwan) by the press or any third parties [without the written authorization of CGMTS]. Pursuant to the applicable laws and regulations in the Republic of China (Taiwan), the recipient of the Product shall not take advantage of such Product to involve in any matters in which the recipient may have conflicts of interest. If the Product covers securities which are not allowed to be offered or traded in the Republic of China (Taiwan), neither the Product nor any information contained in the Product shall be considered as advertising the securities or making recommendation of the securities in the Republic of China (Taiwan). The Product is for informational purposes only and is not intended as an offer or solicitation for the purchase or sale of a security or financial products. Any decision to purchase securities or financial products mentioned in the Product must take into account existing public information on such security or the financial products or any registered prospectus.

The Product is made available in **Thailand** through Citicorp Securities (Thailand) Ltd., which is regulated by the Securities and Exchange Commission of Thailand. 399 Interchange 21 Building, 18th Floor, Sukhumvit Road, Klongtoey Nua, Wattana, Bangkok 10110, Thailand.

The Product is made available in **Turkey** through Citibank AS which is regulated by Capital Markets Board. Tekfen Tower, Eski Buyukdere Caddesi # 209 Kat 2B, 23294 Levent, Istanbul, Turkey.

In the **U.A.E**, these materials (the "Materials") are communicated by Citigroup Global Markets Limited, DIFC branch ("CGML"), an entity registered in the Dubai International Financial Center ("DIFC") and licensed and regulated by the Dubai Financial Services Authority ("DFSA") to Professional Clients and

Market Counterparties only and should not be relied upon or distributed to Retail Clients. A distribution of the different Citi Research ratings distribution, in percentage terms for Investments in each sector covered is made available on request. Financial products and/or services to which the Materials relate will only be made available to Professional Clients and Market Counterparties.

The Product is made available in **United Kingdom** by Citigroup Global Markets Limited, which is authorised by the Prudential Regulation Authority ("PRA") and regulated by the Financial Conduct Authority ("FCA") and the PRA. This material may relate to investments or services of a person outside of the UK or to other matters which are not authorised by the PRA nor regulated by the FCA and the PRA and further details as to where this may be the case are available upon request in respect of this material. Citigroup Centre, Canada Square, Canary Wharf, London, E14 5LB.

The Product is made available in **United States** by Citigroup Global Markets Inc., which is a member of FINRA and registered with the US Securities and Exchange Commission. 388 Greenwich Street, New York, NY 10013.

Unless specified to the contrary, within EU Member States, the Product is made available by Citigroup Global Markets Europe AG ("CGME"), which is regulated by the European Central Bank and the German Federal Financial Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht-BaFin).

The Product is not to be construed as providing investment services in any jurisdiction where the provision of such services would not be permitted.

Subject to the nature and contents of the Product, the investments described therein are subject to fluctuations in price and/or value and investors may get back less than originally invested. Certain high-volatility investments can be subject to sudden and large falls in value that could equal or exceed the amount invested. The yield and average life of CMOs (collateralized mortgage obligations) referenced in this Product will fluctuate depending on the actual rate at which mortgage holders prepay the mortgages underlying the CMO and changes in current interest rates. Any government agency backing of the CMO applies only to the face value of the CMO and not to any premium paid. Certain investments contained in the Product may have tax implications for private customers whereby levels and basis of taxation may be subject to change. If in doubt, investors should seek advice from a tax adviser. The Product does not purport to identify the nature of the specific market or other risks associated with a particular transaction. Advice in the Product is general and should not be construed as personal advice given it has been prepared without taking account of the objectives, financial situation or needs of any particular investor. Accordingly, investors should, before acting on the advice, consider the appropriateness of the advice, having regard to their objectives, financial situation and needs. Prior to acquiring any financial product, it is the client's responsibility to obtain the relevant offer document for the product and consider it before making a decision as to whether to purchase the product.

Citi Research product may source data from dataCentral. dataCentral is a Citi Research proprietary database, which includes the Firm's estimates, data from company reports and feeds from Thomson Reuters. The source for all referenced prices, unless otherwise stated, is DataCentral. Past performance is not a guarantee or reliable indicator of future results. Forecasts are not a guarantee or reliable indicator of future performance. The printed and printable version of the research report may not include all the information (e.g. certain financial summary information and comparable company data) that is linked to the online version available on the Firm's proprietary electronic distribution platforms.

**Card Insights.** Where this report references Card Insights data, Card Insights consists of selected data from a subset of Citi's proprietary credit card transactions. Such data has undergone rigorous security protocols to keep all customer information confidential and secure; the data is highly aggregated and anonymized so that all unique customer identifiable information is removed from the data prior to receipt by the report's author or distribution to external parties. This data should be considered in the context of other economic indicators and publicly available information. Further, the selected data represents only a subset of Citi's proprietary credit card transactions due to the selection methodology or other limitations and should not be considered as indicative or predictive of the past or future financial performance of Citi or its credit card business.

Where included in this report, MSCI sourced information is the exclusive property of Morgan Stanley Capital International Inc. (MSCI). Without prior written permission of MSCI, this information and any other MSCI intellectual property may not be reproduced, disseminated or used to create any financial products, including any indices. This information is provided on an "as is" basis. The user assumes the entire risk of any use made of this information. MSCI, its affiliates and any third party involved in, or related to, computing or compiling the information hereby expressly disclaim all warranties of originality, accuracy, completeness, merchantability or fitness for a particular purpose with respect to any of this information. Without limiting any of the foregoing, in no event shall MSCI, any of its affiliates or any third party involved in, or related to, computing or compiling the information have any liability for any damages of any kind. MSCI, Morgan Stanley Capital International and the MSCI indexes are services marks of MSCI and its affiliates. Part of this product may contain Sustainalytics proprietary information that may not be reproduced, used, disseminated, modified nor published in any manner without the express written consent of Sustainalytics. Sustainalytics, its affiliates and any third party involved in, or related to, computing or compiling the information hereby expressly disclaim all warranties of originality, accuracy, completeness, merchantability or fitness for a particular purpose with respect to any of this information. Any information attributed to Sustainalytics is provided solely for informational purposes and on its own should not be considered an offer to buy or sell a security. Neither Sustainalytics nor all its third-party suppliers provide investment advice (as defined in the applicable jurisdiction) or any other form of (financial) advice. The information is provided "as is" and, therefore Sustainalytics assumes no responsibility for errors or omissions. Sustainalytics cannot be held liable for damage arising from the use of this product or information contained herein in any manner whatsoever. Where data is attributed to Morningstar that data is © 2023 Morningstar, Inc. All Rights Reserved. That information: (1) is proprietary to Morningstar and/or its content providers; (2) may not be copied or distributed; and (3) is not warranted to be accurate, complete or timely. Neither Morningstar nor its content providers are responsible for any damages or losses arising from any use of this information.

The Firm accepts no liability whatsoever for the actions of third parties. The Product may provide the addresses of, or contain hyperlinks to, websites. Except to the extent to which the Product refers to website material of the Firm, the Firm has not reviewed the linked site. Equally, except to the extent to which the Product refers to website material of the Firm, the Firm takes no responsibility for, and makes no representations or warranties whatsoever as to, the data and information contained therein. Such address or hyperlink (including addresses or hyperlinks to website material of the Firm) is provided solely for your convenience and information and the content of the linked site does not in any way form part of this document. Accessing such website or following such link through the Product or the website of the Firm shall be at your own risk and the Firm shall have no liability arising out of, or in connection with, any such referenced website.

© 2023 Citigroup Global Markets Inc. Citi Research is a division of Citigroup Global Markets Inc. Citi and Citi with Arc Design are trademarks and service marks of Citigroup Inc. and its affiliates and are used and registered throughout the world. All rights reserved. The research data in this report are not intended to be used for the purpose of (a) determining the price of or amounts due in respect of (or to value) one or more financial products or instruments and/or (b) measuring or comparing the performance of, or defining the asset allocation of a financial product, a portfolio of financial instruments, or a collective investment undertaking, and any such use is strictly prohibited without the prior written consent of Citi Research. Any unauthorized use, duplication, redistribution or disclosure of this report (the "Product"), including, but not limited to, redistribution of the Product by electronic mail, posting of

the Product on a website or page, and/or providing to a third party a link to the Product, is prohibited by law and will result in prosecution. The information contained in the Product is intended solely for the recipient and may not be further distributed by the recipient to any third party.

---

ADDITIONAL INFORMATION IS AVAILABLE UPON REQUEST

---