

2 November 2023

Financial Services | Banks

DBS (DBS SP)

Neutral (Maintained)

MAS Takes Further Action For Latest Outages

- **Stay NEUTRAL, with new SGD34.70 TP from SGD36.30, 5% upside.** The Monetary Authority of Singapore (MAS) has taken further action against DBS following various incidences of digital banking service outages this year. These include barring DBS from reducing local branch and ATM network, as well as undertaking acquisitions for the next six months. We await further details from management (3Q23 results out on 6 Nov) as to the impact from the latest round of regulatory action but the direct impact looks to involve higher opex (compliance cost, tech spending) and capex.
- **MAS takes action on DBS ...** On the back of various disruptions to DBS' banking services that had occurred this year, MAS announced yesterday that it has imposed a six-month pause on DBS' non-essential IT changes (except for those related to security, regulatory compliance and risk management) to ensure that DBS maintains focus on restoring the resilience of its digital banking services. During this time, DBS will not be allowed to acquire new business ventures or reduce its branch and ATM networks in Singapore. MAS will undertake a review of DBS' remediation efforts at the end of the six months, after which, MAS may extend the duration of the measures, vary the additional capital requirements imposed or take further action. For now, MAS kept the multiplier of 1.8x to DBS's risk weighted assets for operational risk, which was imposed after the Mar and May 2023 incidents.
- **... following several service disruptions this year** with the most recent outage in October involving a glitch at its data centre leading to disruptions of multiple services, as well as intermittent access to mobile wallet services (see Figure 2 for the list of disruptions). Since early 2022, the regulator has imposed penalties on DBS including higher capital requirements totalling SGD1.6bn (30bps impact to CET-1 ratio) for similar service disruptions.
- **DBS takes steps by unveiling a roadmap to improve technology resiliency.** After the 29 Mar incident, DBS had appointed Accenture to carry out a comprehensive review of the bank's digital banking services. The key gaps and deficiencies identified fall into the following key areas – technology risk governance, incident management, system resilience and change management. Accordingly, DBS unveiled yesterday its roadmap to improve technology resilience, which it estimates could take 12-24 months to complete. It will also set aside a special budget of SGD80m to enhance system resiliency.
- **Keeping earnings forecasts unchanged for now** but we lower our TP to SGD34.70 after revising up our COE assumption by 25bps to 12.25% – reflecting potential risks to earnings (albeit may not be too significant) and further regulatory actions. Our TP incorporates a 2% ESG premium.

Forecasts and Valuation	Dec-21	Dec-22	Dec-23F	Dec-24F	Dec-25F
Reported net profit (SGDm)	6,805	8,193	10,399	9,898	10,325
Net profit growth (%)	44.1	20.4	26.9	(4.8)	4.3
Recurring net profit (SGDm)	6,801	8,193	10,399	9,898	10,325
Recurring EPS (SGD)	2.66	3.19	4.04	3.85	4.01
BVPS (SGD)	22.40	22.10	23.07	24.83	26.52
DPS (SGD)	1.20	2.00	1.90	2.14	2.38
Recurring P/E (x)	12.43	10.36	8.17	8.59	8.23
P/B (x)	1.47	1.49	1.43	1.33	1.25
Dividend Yield (%)	3.6	6.1	5.8	6.5	7.2
Return on average equity (%)	12.1	14.3	17.9	16.1	15.6

Source: Company data, RHB

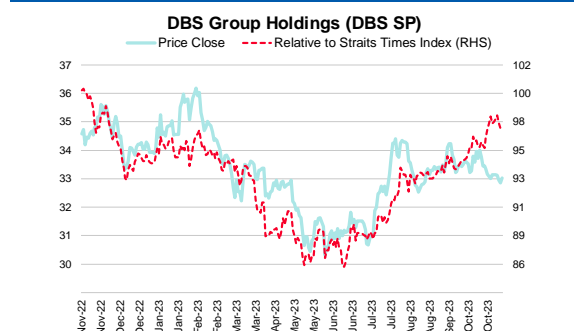
Target Price (Return): SGD34.70 (+5%)
 Price (Market Cap): SGD33.00 (USD62,160m)
 ESG score: 3.1 (out of 4)
 Avg Daily Turnover (SGD/USD) 90.5m/66.5m

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Share Performance (%)

	YTD	1m	3m	6m	12m
Absolute	(2.6)	(1.8)	(4.0)	0.6	(4.5)
Relative	2.8	2.6	4.8	6.5	(2.8)
52-wk Price low/high (SGD)				30.3	36.2



Source: Bloomberg

Overall ESG Score: 3.1 (out of 4)

E: GOOD

DBS' sustainability agenda is centered around three pillars – responsible banking, responsible business practices, and creating social impact. To encourage carbon-intensive companies to adopt more carbon-efficient operations, DBS published the Sustainable and Transition Finance Framework and Taxonomy. It aims to build a sustainable finance portfolio of SGD50bn by 2024 (2022: SGD9.6bn), and is committed to ensure net zero operational carbon emissions by 2022.

S: GOOD

DBS has a comprehensive approach to talent management and retention. As skills required in banking are fast evolving, DBS is doubling down on efforts to build a future-ready workforce. In 2021, women accounted for 51% of total employees, 27% of the Board and 25% of its Group Management Committee. DBS has initiatives to onboard the underbanked, nurture healthy savings and investment habits, and provide financing to underserved businesses and customers.

G: EXCELLENT

DBS has a multi-year roadmap to modernise its data governance programme. In Mar 2023, the Monetary Authority of Singapore warns of supervisory action after a second disruption in the bank's digital services in 16 months.

Financial Exhibits

Asia	Financial summary (SGD)	Dec-21	Dec-22	Dec-23F	Dec-24F	Dec-25F
Singapore	EPS	2.66	3.19	4.04	3.85	4.01
Financial Services	Recurring EPS	2.66	3.19	4.04	3.85	4.01
DBS	DPS	1.20	2.00	1.90	2.14	2.38
DBS SP	BVPS	22.40	22.10	23.07	24.83	26.52
Neutral						
Valuation basis	Valuation metrics	Dec-21	Dec-22	Dec-23F	Dec-24F	Dec-25F
GGM-derived intrinsic value with an ESG overlay. Key GGM assumptions are:	Recurring P/E (x)	12.43	10.36	8.17	8.59	8.23
i. 16.2% ROE;	P/B (x)	1.5	1.5	1.4	1.3	1.2
ii. 12.25% COE; and	Dividend Yield (%)	3.6	6.1	5.8	6.5	7.2
iii. 3.0% long term growth.						
Key drivers	Income statement (SGDm)	Dec-21	Dec-22	Dec-23F	Dec-24F	Dec-25F
Key earning drivers are:	Interest income	10,185	15,927	20,502	20,465	20,921
i. Credit cost;	Interest expense	(1,745)	(4,986)	(6,591)	(6,616)	(6,832)
ii. NIM;	Net interest income	8,440	10,941	13,912	13,848	14,089
iii. Fee income growth; and	Non interest income	5,744	5,561	6,082	6,375	6,954
iv. Loan growth.	Total operating income	14,184	16,502	19,994	20,224	21,043
	Overheads	(6,569)	(7,090)	(7,745)	(8,151)	(8,513)
	Pre-provision operating profit	7,615	9,412	12,249	12,073	12,530
	Loan impairment allowances	(51)	(237)	(525)	(680)	(655)
	Other impairment allowances	(1)	-	-	-	-
	Income from associates	213	207	238	262	283
	Other exceptional items	4	-	-	-	-
	Pre-tax profit	7,780	9,382	11,962	11,655	12,158
	Taxation	(973)	(1,188)	(1,555)	(1,748)	(1,824)
	Minority interests	(2)	(1)	(8)	(9)	(10)
	Reported net profit	6,805	8,193	10,399	9,898	10,325
	Recurring net profit	6,801	8,193	10,399	9,898	10,325
Key risks	Profitability ratios	Dec-21	Dec-22	Dec-23F	Dec-24F	Dec-25F
Key risks are:	Return on average assets (%)	1.0	1.1	1.4	1.3	1.3
i. Higher-than-expected credit cost	Return on average equity (%)	12.1	14.3	17.9	16.1	15.6
ii. Weaker-than-expected NIM;	Return on IEAs (%)	1.6	2.4	3.0	2.8	2.8
iii. Execution risks related to integration of newly acquired assets.	Cost of funds (%)	0.3	0.8	1.1	1.0	1.0
	Net interest spread (%)	1.3	1.6	1.9	1.8	1.8
	Net interest margin (%)	1.4	1.7	2.0	1.9	1.9
	Non-interest income / total income (%)	40.5	33.7	30.4	31.5	33.0
	Cost to income ratio (%)	46.3	43.0	38.7	40.3	40.5
	Credit cost (bps)	1.29	5.67	12.31	15.33	14.13
Company Profile	Balance sheet (SGDm)	Dec-21	Dec-22	Dec-23F	Dec-24F	Dec-25F
DBS is the largest Singapore bank by assets. It also has significant exposure to Greater China.	Total gross loans	415,072	420,284	432,893	454,537	472,719
	Other interest earning assets	230,708	254,753	269,502	280,327	292,542
	Total gross IEAs	645,780	675,037	702,395	734,864	765,260
	Total provisions	(6,079)	(5,765)	(6,450)	(6,450)	(6,510)
	Net loans to customers	408,993	414,519	426,443	448,087	466,209
	Total net IEAs	639,701	669,272	695,945	728,414	758,750
	Total non-IEAs	46,372	74,096	62,240	55,942	54,106
	Total assets	686,073	743,368	758,185	784,356	812,856
	Customer deposits	501,959	527,000	548,080	575,484	601,381
	Other interest-bearing liabilities	87,415	91,284	87,513	86,077	86,085
	Total IBLs	589,374	618,284	635,593	661,561	687,466
	Total non-IBLs	38,985	68,012	63,035	58,688	56,928
	Total liabilities	628,359	686,296	698,629	720,250	744,394
	Share capital	2,441	2,441	2,441	2,441	2,441
	Shareholders' equity	57,526	56,887	59,366	63,911	68,265
	Minority interests	188	185	190	195	198
	Asset quality and capital	Dec-21	Dec-22	Dec-23F	Dec-24F	Dec-25F
	Reported NPLs / gross cust loans (%)	1.3	1.1	1.2	1.1	1.1
	Total provisions / reported NPLs (%)	114.9	121.1	129.6	125.6	124.1
	CET-1 ratio (%)	14.4	14.6	15.0	14.9	15.6
	Tier-1 ratio (%)	15.1	15.2	15.8	15.6	16.3
	Total capital ratio (%)	17.0	17.0	17.3	16.9	17.5

Source: Company data, RHB

Emissions And ESG

Trend analysis

Total emissions declined by 36% as compared to 2019 thanks to the purchase of Renewable Energy Certificates in Hong Kong, China, Taiwan, India and Indonesia.

Emissions (tCO ₂ e)	Dec-20	Dec-21	Dec-22
Scope 1	992	757	318
Scope 2	29,751	31,207	16,824
Scope 3	13,008	17,482	24,427
Total emissions	43,751	49,446	41,569

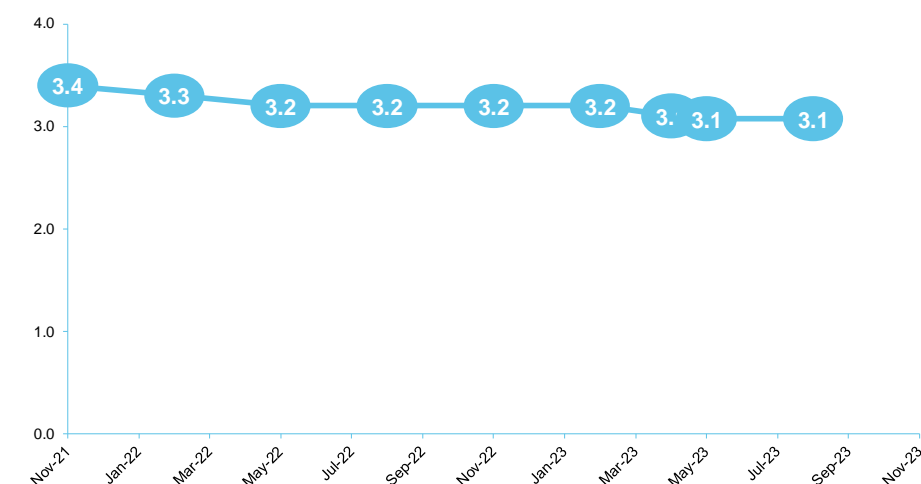
Figures before taking into account purchased carbon offsets

Source: Company data, RHB

Latest ESG-Related Developments

- **Published climate agenda in 2022:** Published science-informed decarbonisation pathways and set interim 2030 decarbonisation targets for a large number of sectors and 2050 net zero target
- **Surpassed sustainable financing target:** DBS has committed a cumulative total of SGD61bn in sustainable financing transactions as at end-2022, surpassing its SGD50bn target two years ahead of schedule

ESG Rating History



Source: RHB

Figure 1: Areas of improvement, recommendations and action plans

Areas for improvement	Accenture's key recommendations	Action plan
1. Technology risk governance and oversight*	<ul style="list-style-type: none"> Improve technology risk governance by clarifying roles and responsibilities of both the first and second lines of defence and encouraging greater challenge 	<ul style="list-style-type: none"> DBS has established a new sub-committee of the Board Risk Management Committee called the BRMC Technology Risk Committee (BTRC). The BTRC will provide dedicated oversight of technology risk. It will also oversee the implementation of the remedial measures that the bank will carry out to address the findings of the Accenture review The bank also transferred the Technology Risk Management team to the Risk Management Group, reporting to the Chief Risk Officer, to enhance independent checks and balances
2. Incident management*	<ul style="list-style-type: none"> Improve problem and incident management, including accuracy of reporting and appropriate post-mortem reviews to propagate lessons learnt to the rest of the organisation 	<ul style="list-style-type: none"> Work has commenced to establish clearer ownership and management of incidents within the bank, as well as between the bank and its service providers and vendors The bank will also uplift its proactive problem management through the active review of early warning indicators, identification of other possibly affected areas, and taking preventive actions. This is in addition to ensuring that lessons learnt from prior incidents are shared with the rest of the organisation
3. System resilience*	<ul style="list-style-type: none"> Evolve technology architecture to cater for greater resiliency and speedier recoverability. The current active-active architecture ensures high availability, but additional stand-by capabilities might be needed for specific single points of failure Carry out holistic simulations to failover to backup system(s) within regulatory mandated downtime limit 	<ul style="list-style-type: none"> DBS is reviewing the bank's systems architecture for opportunities to provide additional resiliency. This is particularly important for systems and applications that support services for which customers expect minimal downtime The bank is also working to ensure high availability of critical services and disaster recovery. This includes identifying potential failure scenarios and possible remediation actions, such as having a warm standby (a back-up server that runs in the background of the primary system), or increased redundancy A special budget of SGD80m has been set aside for this
4. Change management*	<ul style="list-style-type: none"> Enhance rigour in system change management, with better impact assessment and testing before promoting new changes/releases to production. In particular, third-party vendor management needs to be improved 	<ul style="list-style-type: none"> DBS is working to improve impact assessment and testing before implementing and going live with new changes and releases The bank is also establishing a better protocol for vendor management and use of third-party tools. Having a rigorous process to manage change and vendors is important as the bank uses microservices by multiple vendors
5. Technology organisation, leadership and management^		<ul style="list-style-type: none"> Given the increased complexity and scale of the technology and operations (T&O) function, from 1 Nov, DBS is splitting T&O into two separate units to allow for dedicated management oversight of each. Jimmy Ng (currently Chief Information Officer and Group Head of T&O) will assume the role of Group Head of Operations. A search for a new CIO has been launched. In the interim, Han Kwee Juan (who will remain Singapore Country Head) will assume the role of Acting CIO. To enable him to give the needed attention and focus to the technology function, Sim S. Lim, currently a Senior Advisor to the bank, will temporarily return to manage the day-to-day operations of the Singapore organisation. DBS has strengthened the bank's site reliability engineering (SRE) with new leadership. Ho Twee Teng, a 40-year DBS technology veteran, was appointed as the bank's new Head of Enterprise Architecture Site Reliability Engineering (EASRE) from 18 Oct. DBS has also created a new Quality Assurance function within EASRE to provide an additional independent layer of verification, controls and checks, over the bank's change management process.
6. Technology operations^		<ul style="list-style-type: none"> With immediate effect, the bank has instituted a six-month pause on non-essential IT activities, to single-mindedly focus on improving technology resiliency

Note: * Areas for improvement, as identified by Accenture

Note 2: ^ Actions taken by DBS in addition to Accenture's recommendations

Source: DBS

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Figure 2: History of service disruptions in 2023

Date	Event
20 Oct	Intermittent access to mobile wallet services
14 Oct	Data centre glitch led to hours-long disruptions of multiple services
26 Sep	Delays to processing transactions on its PayNow digital payments service
5 May	Disruption in banking and payment systems
29 Mar	Disruption of digital banking and payment services that lasted about 10 hours

Source: Bloomberg

Valuation and TP

We raise our COE assumption by 25bps to 12.25% to reflect the potential risks to earnings from the remedial measures and further potential regulatory actions. Accordingly, our TP is lowered to SGD34.70 from SGD36.30. Our revised TP is based on an intrinsic value of SGD34.01 (from SGD35.34) and GGM-derived P/BV of 1.43x. Our TP also includes a 2% ESG premium based on RHB's proprietary ESG methodology.

Figure 3: DBS – GGM valuation with ESG overlay

Cost of equity (COE) computation:		Sustainable ROE (%)	16.20
Risk free rate (%)	3.00	COE (%)	12.25
Equity premium (%)	8.26	Long-term growth (g)	3.00
Beta (x)	1.12	Implied P/BV (x)	1.43
Cost of equity - CAPM (%)	12.25	BVPS – FY24F	SGD23.83
		Intrinsic value	SGD34.01
ESG premium/(discount) (%)	2.0	ESG premium/(discount)	SGD0.68
		TP (rounded)	SGD34.70

Source: Company data, RHB

Recommendation Chart



Source: RHB, Bloomberg

Date	Recommendation	Target Price	Price
2023-08-03	Neutral	36.3	33.8
2023-06-22	Neutral	33.0	31.8
2023-05-02	Neutral	35.7	33.0
2023-04-02	Buy	39.8	33.0
2023-02-13	Buy	42.0	35.3
2022-11-04	Buy	41.1	34.5
2022-08-05	Buy	37.6	32.8
2022-05-03	Buy	38.1	33.9
2022-02-14	Buy	42.7	37.2
2021-11-07	Buy	40.4	32.3
2021-08-05	Buy	35.5	30.8
2021-05-02	Buy	34.0	29.9
2021-03-30	Buy	33.0	29.0
2021-02-10	Buy	30.0	26.0
2020-12-09	Buy	30.0	25.5

Source: RHB, Bloomberg

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