## Regional Market Focus

# **ETF in Focus**

Refer to important disclosures at the end of this report.

DBS Group Research . Equity

21 Sep 2023

**Analysts** 

Lee Keng LING

Fang Boon FOO

## Semiconductor: On recovery path

- Tailwinds for further semiconductor upside remain strong, expecting a strong recovery of +20.4% y-o-y, after an estimated 12.5% drop in revenue this year
- Green shoots in recent macro data; industry data showing further signs of stabilization
- Formidable AI force, hardware a beneficiary of gen-AI growth
- Preferred ETF picks: SMH and SOXX among the largest in fund size and liquidity
- XSD offers exposure to a larger basket of stocks, including large and mid-to-small caps stocks

#### Drivers intact for further semiconductor upside. The

semiconductor industry is projected to register a strong growth of 20.4% y-o-y in 2024, after a bad year in 2023 of an estimated 12.5% drop in semiconductor revenue, according to data from Gartner. SOX Index, a proxy for semiconductor stocks, continues to pull ahead of markets. Expectation for bottoming of macro data and further improvement in industry data, coupled with potential of generative artificial intelligence (gen-Al) through ChatGPT turned into a forceful tailwind for this sector which remains till today.

#### Indices' YTD price performance (%)



Source: DBS Bank, Bloomberg Finance L.P. As of 15-Sep closing.

Hardware as a beneficiary of gen-Al growth. With gen-

Al likened to the evolution/proliferation of the internet, it does suggest that Al is likely to remain as a key investable theme with a wide, fast-growing addressable market over time. Hardware segment is one to watch: Bloomberg Intelligence sees gen-Al as a US\$1.3trn market by 2032 (2022-32 CAGR of 42%), with hardware poised to be the largest single segment at US\$642bn (or close to 50% of total spending).

#### Generative AI revenue forecast (US\$ bn)



Source: DBS Bank, Bloomberg Intelligence, IDC

Please refer to Appendix for more information on 1) NikkoAM Singapore STI ETF; 2) NikkoAM Straits Trading Asia ex-Japan REIT ETF; 3) NikkoAM SGD Investment Grade Corporate Bond ETF; 4) ABF Singapore Bond Index; 5) ICBC CSOP FTSE China Government Bond ETF; 6) NikkoAM-ICBCSG China Bond ETF; and 7) Lion-OCBC Securities HS TECH ETF

- 1. "The ETFs specifically mentioned herein may not be recognised, authorised or otherwise registered in Singapore for retail distribution. This research is intended for general circulation only and its contents do not take into account the specific investment objectives, financial situation or particular needs of any particular person. Before deciding to purchase any ETF, an investor should seek advice from a financial adviser regarding the suitability of the investment product, taking into account his specific investment objectives, financial situation and particular needs."
- 2. "DBS, in publishing this research on ETFs, and DBSV in circulating the research, are not and should not be taken or considered as having made an offer, recommendation or solicitation to buy or sell the ETFs or to enter into a transaction or to participate in any particular trading or investment strategy. Any reference to any specific company, financial product or asset class in whatever way is used for illustrative purposes only and does not constitute a recommendation on the same."

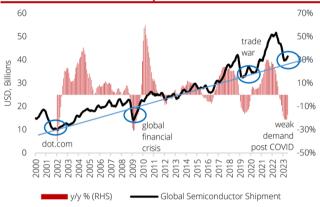




Green shoots in recent macro data; industry data showing further signs of stabilization. Recent datapoints affirm to our view for improving outlooks for electronics and semiconductors sectors. First, global semiconductor shipments in Jul-23 are showing signs of stabilization – 1) y-o-y fall of 11.8% is lower than Jun's 15.8% decline, and 2) recorded the 5th straight month of m-o-m growth.

Latest trade data published by major electronics exporting countries (e.g., South Korea, Taiwan) are also showing nascent signs of bottoming/recovery. Furthermore, DBS Economists see four industry dynamics that should support for improving outlook: 1) bottoming electronics demand, 2) accelerating inventory destocking, 3) consumer spending picking up on new phone releases, and 4) ramping up of GPU orders by global tech giants.

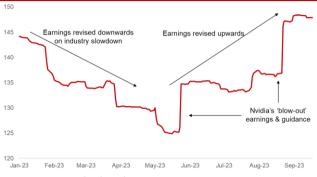
**Global semiconductor shipments** 



Source: DBS Bank, SIA, CEIC

Positive cue from improving earnings growth. Resumption of index earnings growth points to an outlook that is set to improve from hereon. First, the recent pickup in earnings growth – after the bottoming in May-23 – suggests that "the worst is over". This may be so for segments that have lagged (e.g., memory, consumer electronics) during the ongoing slowdown, which analysts are expecting to be close or at the cusp of a positive inflection point.

#### **SOX Index - Forward 12-mth earnings growth**



Source: DBS Bank, Bloomberg Finance L.P.

Earnings have also been revised upwards to reflect the potential contribution from AI to earnings, which analysts have thus far been sanguine on. We have seen positive earnings revision for companies that had provided additional colour/guidance from incremental AI, such as Nvidia, AMD, Broadcom, and Marvell.

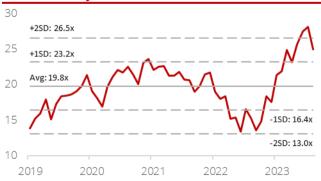
#### Companies' guidance and/or comments on Al

Company	Remarks
Nvidia	S\$5bn jump in q-o-q revenue guidance
AMD	Announced new MI300X Al-chips
Broadcom	Al to make up 25% of FY24 revenue
Marvell	Double Al-revenue to US\$400m in FY24

Source: DBS Bank, Companies, Bloomberg Finance L.P.

**Valuations rich, but justifiable**. Bouts of profit-taking as well as recent earnings revision for index-heavy stocks like Nvidia have led to the easing of forward PE valuations for the SOX Index. While still at elevated (+1.5SD) levels, we believe the rich valuations is justified in anticipation of the wider industry recovery, and the potential/growth of AI.

#### SOX Index - 5-year consensus forward PE



Source: DBS Bank, Bloomberg Finance L.P.



#### **ETF picks**

Our picks, VanEck Semiconductor ETF (SMH), iShares Semiconductor ETF (SOXX) and SPDR S&P Semiconductor ETF (XSD). SMH and SOXX are among the largest semiconductor ETFs in terms of fund size, at US\$9.7bn and US\$8.6bn respectively, vs US\$1.4bn for XSD. Trading liquidity for these two is also better than XSD. However, XSD offers exposure to a larger basket of stocks, including large and also mid-to-small caps stocks.

SMH tracks the MVIS US Listed Semiconductor 25 Index. These companies derive most of their revenues from semiconductors, engaged primarily in the production of semiconductors and semiconductor equipment. Top holdings include Nvidia (19.6%), Taiwan Semiconductor Manufacturing (12.7%), Broadcom (6.6%), ASML Holding (5.7%) and Advanced Micro Devices (4.9%). Most of these names are linked to the Al angle. In terms of country weightings, c. 81.1% from US, 10.3% from Taiwan and 8.6% Netherlands.

**SOXX** tracks the ICE Semiconductor Index, which consists of 30 US stocks that design, manufacture, and distribute semiconductors. Top holdings include Advanced Micro Devices (8.2%), Broadcom (7.8%), Nvidia (7.5%), Intel (7.1%) and Texas Instruments (6.4%).

XSD tracks the performance of the S&P Semiconductor Select Industry Index. XSD is focused almost entirely on US stocks, offering investors concentrated exposure to the US semiconductor industry. Another key point to note is that XSD has exposure to medium- and small-cap stocks, besides the larger ones. Hence, it will be more volatile vs a traditional large cap fund.

#### **Comparison of ETFs**

	SMH US	SOXX US	XSD US
Key data			
Underlying index	MVIS US Listed Semiconductor 25 (TR Net)	ICE Semiconductor Index (TR)	S&P Semiconductors Select Industry Total Return Index
Fund size (LCY'm)	9,666.0	8,617.7	1,407.3
Average daily trading volume ('000)	7,080.7	902.4	60.5
Replication strategy	Full	Full	Full
Date listed	21-Dec-11	13-Jul-01	06-Feb-06
Primary exchange	NASDAQ GM	NASDAQ GM	NYSE Arca
Valuation			
Price (LCY\$)	\$146.03	\$478.76	\$197.51
NAV (LCY\$)	\$146.01	\$478.69	\$197.53
Premium to NAV	0.01%	0.01%	-0.01%
Risk			
Tracking error (1Y) (%)	0.5	0.5	0.4
Expense ratio (%)	0.35	0.35	0.35
Volatility (30D) (%)	26.2	26.3	26.3
Sharpe ratio (1Y)	1.52	1.23	0.70

Source: DBS Bank; Bloomberg Finance L.P. Prices as of 20th September 2023.

#### **References**

15 September 2023 26 June 2023

Regional Technology: Place your chips to ride on recovery wave Regional Technology: Heading to the right side of U-shaped recovery



#### **ETF Performance**

- Performance of ETFs highlighted in ETF Strategy reports in the past year

				Price Performance (%)					
BB Code	ETF Name		Current Price (\$)	Since Report Date	1 week	1-mth	3-mth	6-mth	1 year
Artificial intelligence									
BOTZ US	GLOBAL X ROBOTICS & ARTIFICI	03-Jul-23	25.37	-12.1%	-1.0%	-0.2%	-13.4%	5.5%	31.8%
RBOT LN	ISHARES AUTOMATION&ROBOTIC-A	03-Jul-23	11.12	-6.6%	-1.2%	1.7%	-6.3%	5.1%	22.8%
DRIV US	GLOBAL X AUTONOMOUS&ELEC-ETF	03-Jul-23	24.39	-7.3%	-0.1%	2.4%	-5.9%	9.1%	6.6%
Average				-8.7%	-0.8%	1.3%	-8.5%	6.6%	20.4%
Defensive yield									
VYM US	VANGUARD HIGH DVD YIELD ETF	18-May-23	106.73	2.9%	-0.6%	-0.1%	1.5%	4.4%	5.1%
SCHD US	SCHWAB US DVD EQUITY ETF	18-May-23	73.43	4.1%	-0.2%	-0.2%	1.1%	2.6%	3.4%
DVY US	ISHARES SELECT DIVIDEND ETF	18-May-23	113.23	1.3%	0.6%	0.8%	0.3%	-1.3%	-4.1%
SDY US	SPDR S&P DIVIDEND ETF	18-May-23	119.49	-1.8%	-0.6%	-1.5%	-1.8%	-0.9%	-0.3%
Average				2.8%	-0.1%	0.2%	1.0%	1.9%	1.4%
ESG									
ESGU US	ISHARES ESG AWARE MSCI USA	18-Apr-23	97.62	7.0%	-0.6%	1.6%	1.4%	11.8%	13.8%
USSG US	XTRACKERS MSCI USA ESG LDRS	18-Apr-23	41.10	8.8%	-1.2%	1.8%	1.4%	14.0%	18.4%
ESGV US	VANGUARD ESG US STOCK ETF	18-Apr-23	77.76	7.7%	-1.0%	1.5%	0.5%	12.9%	15.1%
Average				7.8%	-0.9%	1.7%	1.1%	12.9%	15.8%
Renewables									
ACES US	ALPS CLEAN ENERGY ETF	07-Mar-23	40.02	-16.8%	-0.9%	-0.8%	-11.1%	-7.1%	-36.3%
TAN US	INVESCO SOLAR ETF	07-Mar-23	54.60	-30.7%	-1.8%	-4.2%	-22.6%	-22.6%	-33.1%
QCLN US	FIRST TRUST NASDAQ CLEAN EDG	07-Mar-23	45.00	-15.5%	-1.8%	-0.1%	-11.5%	-7.3%	-29.6%
Average				-21.0%	-1.5%	-1.7%	-15.1%	-12.3%	-33.0%
Materials									
XLB US	MATERIALS SELECT SECTOR SPDR	07-Feb-23	80.91	-3.2%	-0.7%	0.1%	0.8%	5.4%	11.9%
VAW US	VANGUARD MATERIALS ETF	07-Feb-23	178.01	-4.0%	-0.1%	0.2%	0.5%	4.8%	11.9%
XME US	SPDR S&P METALS & MINING ETF	07-Feb-23	52.39	-8.5%	0.5%	2.3%	6.3%	4.6%	14.8%
Average				-5.2%	-0.1%	0.9%	2.6%	4.9%	12.9%

Source: DBS Bank, Bloomberg Finance L.P. Prices as of 20th Sep 2023.



### **ETF Performance (continued)**

- Performance of ETFs highlighted in ETF Strategy reports in the past year

				Price Performance (%)					
BB Code	ETF Name		Current Price (\$)	Since Report Date	1 week	1-mth	3-mth	6-mth	1 year
REITS									
SREITS SP	LION-PHILLIP S-REIT ETF	05-Dec-22	0.87	-5.0%	0.3%	0.2%	-5.4%	-4.4%	-13.0%
AXJREIT SP	NIKKOAM ST A E JP REITETF-SG	05-Dec-22	0.83	-8.8%	0.2%	0.0%	-6.0%	-7.8%	-18.0%
PAREIT SP	PHILLIP S-APAC DIVD LDR RETF	05-Dec-22	0.78	-12.2%	0.6%	-0.6%	-9.0%	-7.6%	-11.0%
SRT SP	CSOP IEDGE S-REIT LEADER-SGD	05-Dec-22	0.81	-5.3%	0.9%	0.8%	-5.6%	-5.0%	-12.9%
GRN SP	UOB APAC GREEN REIT ETF-SGD	05-Dec-22	0.72	-10.0%	0.0%	-0.6%	-6.1%	-5.5%	-12.9%
Average				-8.2%	0.4%	0.0%	-6.4%	-6.0%	-13.6%
Financials									
XLF US	FINANCIAL SELECT SECTOR SPDR	31-Oct-22	34.73	2.2%	0.1%	2.2%	4.7%	11.4%	6.0%
VFH US	VANGUARD FINANCIALS ETF	31-Oct-22	84.35	1.0%	0.5%	2.5%	4.7%	11.1%	3.9%
IYG US	ISHARES U.S. FINANCIAL SERVI	31-Oct-22	162.74	2.4%	0.3%	2.0%	4.6%	10.9%	4.6%
Average				1.9%	0.3%	2.2%	4.6%	11.1%	4.8%
Electric Vehicles									
BATT US	AMPLIFY LITHIUM BATTERY TECH	04-Oct-22	11.78	-12.8%	-0.9%	-0.2%	-10.9%	-0.3%	-17.3%
DRIV US	GLOBAL X AUTONOMOUS&ELEC-ETF	04-Oct-22	24.39	12.2%	-0.1%	2.4%	-5.9%	9.1%	6.6%
ECAR LN	ISHARES EV & E DRIV TECH	04-Oct-22	7.38	23.5%	-0.7%	2.0%	-2.0%	9.2%	17.8%
KARS US	KRANESHARES ELECTRIC VEHICLE	04-Oct-22	28.57	-12.2%	-1.3%	-1.0%	-8.6%	0.5%	-17.8%
Average				2.7%	-0.7%	0.8%	-6.9%	4.6%	-2.7%
Oil & Gas									
XLE UP	ENERGY SELECT SECTOR SPDR	05-Sep-22	91.25	14.1%	-1.1%	2.7%	16.4%	17.4%	18.4%
VDE UP	VANGUARD ENERGY ETF	05-Sep-22	128.45	13.7%	-0.4%	3.4%	17.0%	18.4%	16.6%
IXC UP	ISHARES GLOBAL ENERGY ETF	05-Sep-22	41.79	13.5%	0.6%	4.9%	14.9%	17.3%	16.8%
Average				13.8%	-0.3%	3.7%	16.1%	17.7%	17.2%
Renewables									
ACES US	ALPS CLEAN ENERGY ETF	05-Sep-22	40.02	-34.3%	-0.9%	-0.8%	-11.1%	-7.1%	-36.3%
PBD US	INVESCO GLOBAL CLEAN ENERGY	05-Sep-22	16.31	-25.5%	-0.3%	-4.3%	-13.2%	-11.0%	-23.3%
QCLN US	FIRST TRUST NASDAQ CLEAN EDG	05-Sep-22	45.00	-26.8%	-1.8%	-0.1%	-11.5%	-7.3%	-29.6%
Average				-28.8%	-1.0%	-1.7%	-11.9%	-8.5%	-29.8%

Source: DBS Bank, Bloomberg Finance L.P. Prices as of 20th Sep 2023.



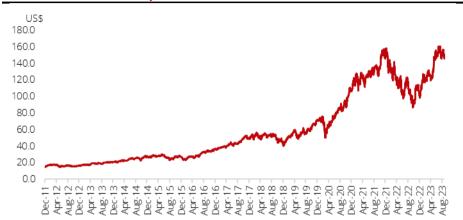
## **VANECK SEMICONDUCTOR ETF**

## **SMH US**

Benchmark: MVIS US Listed Semiconductor 25 (TR Net)

20-Sep-23

#### **Performance since inception**



Price (US\$) 143.03 Total return 46.0%

#### **Key Data**

Manager	VanEck
Fund size (US\$'m)	9,666.0
Avg daily trade ('000)	7,080.7
Expense ratio (%)	0.35
Replication strategy	Full
Primary exchange	NASDAQ
Inception date	21-Dec-11

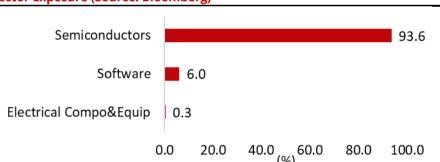
#### Fund description:

- The ETF seeks to replicate as closely as possible, before fees and expenses, the
  price and yield performance of the MVIS® US Listed Semiconductor 25 Index
  (MVSMHTR), which is intended to track the overall performance of companies
  involved in semiconductor production and equipment.
- Global Scope: Portfolio may include both domestic and U.S. listed foreign companies allowing for enhanced industry representation

#### Valuation

Fund PE	38.1
Benchmark PE	28.9
Fund PB	5.6
Benchmark PB	5.5
Fund dividend yield	#N/A N/A
(%)	

## **Sector Exposure (Source: Bloomberg)**



#### **Risk**

0.5
26.2
1.5
-45.3

#### **Top Holdings (%)**

<u> </u>	
NVIDIA Corp	19.6
TSMC	12.7
Broadcom Inc	6.6
ASML Holding	5.7
Advanced Micro Devices	4.9
Intel Corp	4.7
Texas Instruments Inc	4.6
QUALCOMM Inc	4.6
Applied Materials Inc	4.3
Analog Devices Inc	4.3
Total	72.1

#### Performance (%)

	Α	Annualised (%)			Cumulative (%)		
	1Y	2Y	Incep.	1Y	2Y	Incep.	
Fund	46.0	6.0	23.0	46.0	12.3	1042.5	
Benchmark	45.9	6.1	21.1	45.9	12.7	1041.1	

Source: Bloomberg Finance L.P., DBS Bank, respective fund fact sheets



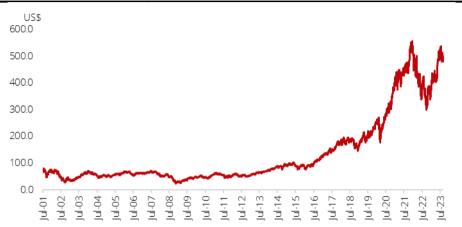
## ISHARES SEMICONDUCTOR ETF

## **SOXX US**

20-Sep-23

Benchmark: ICE Semiconductor Index (TR)

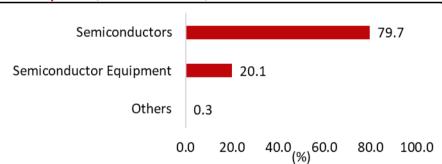
**Performance since inception** 



Fund description:

- The ETF seeks to track the investment results of an index composed of U.S.listed equities in the semiconductor sector
- It provides (1) Exposure to U.S. companies that design, manufacture, and distribute semiconductors and (2) Targeted access to domestic semiconductor stocks

Sector Exposure (Source: Factsheet)



#### Performance (%)

	A	nnualised	(%)	Cumulative (%)		
	1Y	2Y	Incep.	1Y	2Y	Incep.
Fund	37.9	3.3	9.8	37.9	6.8	691.9
Benchmark*	38.7	3.8	23.2	38.7	7.7	890.2

Source: Bloomberg Finance L.P., DBS Bank, respective fund fact sheets

Price (US\$) 478.76 Total return 37.9%

**Key Data** 

Manager	BlackRock
Fund size (US\$'m)	8,617.7
Avg daily trade ('000)	902.4
Expense ratio (%)	0.35
Replication strategy	Full
Primary exchange	NASDAQ
Inception date	13-Jul-01

#### **Valuation**

Fund PE	39.8
Benchmark PE	27.8
Fund PB	4.4
Benchmark PB	4.4
Fund dividend yield	1.0
(%)	

#### Risk

Tracking error (%)	0.5
Volatility (%)	26.3
Sharpe ratio	1.2
Max drawdown (%)	-70.5

#### Top Holdings (%)

Advanced Micro Devices	8.2
Broadcom Inc	7.8
NVIDIA Corp	7.5
Intel Corp	7.1
Texas Instruments Inc	6.4
Micron Technology Inc	4.3
Analog Devices Inc	4.2
QUALCOMM Inc	4.2
NXP Semiconductors NV	4.1
ON Semiconductor Corp	4.1
Total	57.6

<sup>\*</sup>Benchmark inception date: 21 Sep 2012



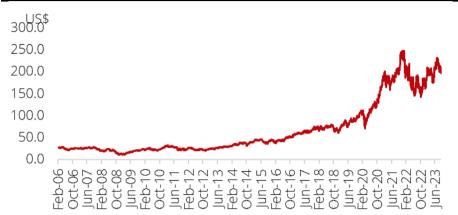
## SPDR S&P SEMICONDUCTOR ETF

**XSD US** 

20-Sep-23

Benchmark: S&P Semiconductors Select Industry Total Return Index

**Performance since inception** 



Price (US\$) 197.51 Total return 20.8%

#### **Key Data**

Manager	State Street
Fund size (US\$'m)	1,407.3
Avg daily trade ('000)	60.5
Expense ratio (%)	0.35
Replication strategy	Full
Primary exchange	NYSE Arca
Inception date	06-Feb-06

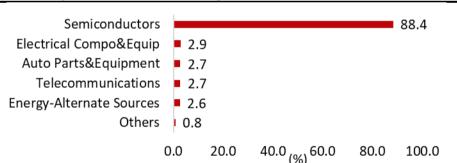
#### Fund description:

- The ETF seeks to provide investment results that, before fees and expenses, correspond generally to the total return performance of the S&P® Semiconductor Select Industry Index
- Seeks to provide exposure to the semiconductors segment of the S&P TMI, which comprises the Semiconductors sub-industry

#### **Valuation**

Fund PE	#N/A N/A
Benchmark PE	51.3
Fund PB	3.7
Benchmark PB	3.7
Fund dividend yield	0.4
(%)	

#### **Sector Exposure (Source: Bloomberg)**



#### Risk

Tracking error (%)	0.4
Volatility (%)	26.3
Sharpe ratio	0.7
Max drawdown (%)	-64.9%

#### **Top Holdings (%)**

0 1	
QUALCOMM Inc	2.9
Semtech Corp	2.9
Universal Display Corp	2.9
Rambus Inc	2.8
Micron Technology Inc	2.8
Analog Devices Inc	2.8
SiTime Corp	2.8
Cirrus Logic Inc	2.8
Power Integrations Inc	2.8
Texas Instruments Inc	2.8
Total	28.2

#### Performance (%)

	Α	nnualised	(%)	C	umulative	(%)
	1Y	2Y	Incep.	1Y	2Y	Incep.
Fund	20.8	-0.3	12.7	20.8	-0.5	721.5
Benchmark	21.2	0.0	12.8	21.2	-0.1	739.0

Source: Bloomberg Finance L.P., DBS Bank, respective fund fact sheets



# Appendix – ETFs to Watch



## **ETF in Focus**

#### ETFs to Watch (as of 20th September 2023)

	DBSSTI	AXJREIT	NIKIGCB	SBIF	CYC	ZHY	HST
Key Data							
ETF name	NikkoAM Singapore STI ETF	NikkoAM Straits Trading Asia ex-Japan REIT ETF	NikkoAM SGD Investment Grade Corporate Bond ETF	ABF Singapore Bond Index	ICBC CSOP FTSE China Government Bond ETF	NikkoAM-ICBCSG China Bond ETF	Lion-OCBC Securities HS TECH ETF
Underlying index	Straits Times Index	FTSE EPRA Nareit Asia ex Japan REITS 10% Capped Index	iBoxx SGD Non- Sovereigns Large Cap Index	iBoxx ABF Singapore Total Return Index	FTSF Chinese	ChinaBond ICBC 1-10 Year Treasury and Policy Bank Bond Index	Hang Seng TECH Index
Fund size (LCY'm)	663.3	387.6	543.2	987.1	294.9	1,254.5	316.5
Average daily trading volume ('000)	185.4	716.1	406.8	261.6	3.6	1.7	3,950.7
Total return (1Y)	3.5%	-13.3%	3.7%	3.0%	-4.4%	2.6%	-1.2%
Replication strategy	Full	Full	Full	Full	Optimised	Optimised	Full
Date listed	25/02/2009	29/04/2017	27/08/2018	31/08/2005	21/09/2020	24/11/2020	10/12/2020
Primary exchange	Singapore	Singapore	Singapore	Singapore	Singapore	Singapore	Singapore
Valuation							
Price (LCY\$)	\$3.33	\$0.83	\$0.94	\$1.03	\$13.06	\$5.57	\$0.66
NAV (LCY\$)	\$3.34	\$0.83	\$0.94	\$1.03	\$69.84	\$5.57	\$3.86
Risk							
Tracking error (1Y)	1.7	2.0	1.5	2.0	3.2	0.7	4.7
Expense ratio	0.30	0.60	0.30	0.25	0.25	0.30	0.68
Volatility (30D) (%)	8.8	7.1	3.0	4.6	2.7	1.7	26.6
Sharpe ratio (1Y)	0.2	-1.0	-0.1	-0.1	-2.0	0.3	0.1

Source: DBS Bank; Bloomberg Finance L.P.

#### FTF in Focus



Completed Date: 21 Sep 2023 20:29:40 (SGT) Dissemination Date: 21 Sep 2023 20:50:31 (SGT)

#### DISCLOSURE/DISCLAIMER

This report is prepared by DBS Bank. This report is solely intended for the clients of DBS Bank Ltd, DBS Vickers Securities (Singapore) Pte Ltd, its respective connected and associated corporations and affiliates only and no part of this document may be (i) copied, photocopied or duplicated in any form or by any means or (ii) redistributed without the prior written consent of DBS Bank.

The research set out in this report is based on information obtained from sources believed to be reliable, but we (which collectively refers to DBS Bank Ltd, DBS Vickers Securities (Singapore) Pte Ltd, its respective connected and associated corporations, affiliates and their respective directors, officers, employees and agents (collectively, the "DBS Group") have not conducted due diligence on any of the companies, verified any information or sources or taken into account any other factors which we may consider to be relevant or appropriate in preparing the research. Accordingly, we do not make any representation or warranty as to the accuracy, completeness or correctness of the research set out in this report. Opinions expressed are subject to change without notice. This research is prepared for general circulation. Any recommendation contained in this document does not have regard to the specific investment objectives, financial situation and the particular needs of any specific addressee. This document is for the information of addressees only and is not to be taken in substitution for the exercise of judgement by addressees, who should obtain separate independent legal or financial advice. The DBS Group accepts no liability whatsoever for any direct, indirect and/or consequential loss (including any claims for loss of profit) arising from any use of and/or reliance upon this document and/or further communication given in relation to this document. This document is not to be construed as an offer or a solicitation of an offer to buy or sell any securities. The DBS Group, along with its affiliates and/or persons associated with any of them may from time to time have interests in the securities mentioned in this document. The DBS Group, may have positions in, and may effect transactions in securities mentioned herein and may also perform or seek to perform broking, investment banking and other banking services for these companies.

Any valuations, opinions, estimates, forecasts, ratings or risk assessments herein constitutes a judgment as of the date of this report, and there can be no assurance that future results or events will be consistent with any such valuations, opinions, estimates, forecasts, ratings or risk assessments. The information in this document is subject to change without notice, its accuracy is not guaranteed, it may be incomplete or condensed, it may not contain all material information concerning the company (or companies) referred to in this report and the DBS Group is under no obligation to update the information in this report.

This publication has not been reviewed or authorized by any regulatory authority in Singapore, Hong Kong or elsewhere. There is no planned schedule or frequency for updating research publication relating to any issuer.

The valuations, opinions, estimates, forecasts, ratings or risk assessments described in this report were based upon a number of estimates and assumptions and are inherently subject to significant uncertainties and contingencies. It can be expected that one or more of the estimates on which the valuations, opinions, estimates, forecasts, ratings or risk assessments were based will not materialize or will vary significantly from actual results. Therefore, the inclusion of the valuations, opinions, estimates, forecasts, ratings or risk assessments described herein IS NOT TO BE RELIED UPON as a representation and/or warranty by the DBS Group (and/or any persons associated with the aforesaid entities), that:

- (a) such valuations, opinions, estimates, forecasts, ratings or risk assessments or their underlying assumptions will be achieved, and
- (b) there is any assurance that future results or events will be consistent with any such valuations, opinions, estimates, forecasts, ratings or risk assessments stated therein.

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

Any assumptions made in this report that refers to commodities, are for the purposes of making forecasts for the company (or companies) mentioned herein. They are not to be construed as recommendations to trade in the physical commodity or in the futures contract relating to the commodity referred to in this report.

#### **ETF in Focus**



DBSVUSA, a US-registered broker-dealer, does not have its own investment banking or research department, has not participated in any public offering of securities as a manager or co-manager or in any other investment banking transaction in the past twelve months and does not engage in market-making.

#### ANALYST CERTIFICATION

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

#### COMPANY-SPECIFIC / REGULATORY DISCLOSURES

- 1. DBS Bank Ltd, DBS HK, DBS Vickers Securities (Singapore) Pte Ltd ("DBSVS"), DBSVUSA, or their subsidiaries and/or other affiliates have proprietary positions in VANECK SEMICONDUCTOR ETF, ISHARES SEMICONDUCTOR ETF, SPDR S&P METALS & MINING ETF, NIKKOAM ST A E JP REITETF-SG, CSOP IEDGE S-REIT LEADER-SGD, FINANCIAL SELECT SECTOR SPDR, ENERGY SELECT SECTOR SPDR, NIKKO AM SINGAPORE STI ETF, NIKKO AM SGD INV GR CO B ETF, ABF SINGAPORE BOND INDX FUND, ICBC CSOP FTSE CH GOV BD ETF, NIKKOAM-ICBCSG CH BD ETF-RMB, NIKKOAM-ICBCSG CH BD ETF-SGD recommended in this report as of 19 Sep 2023.
- 2. DBS Bank Ltd, DBS HK, DBS Vickers Securities (Singapore) Pte Ltd ("DBSVS"), DBSVUSA, or their subsidiaries and/or other affiliates have proprietary positions in Nvidia Corporation, Advanced Micro Devices Inc, Broadcom Ltd, Intel Corp, Texas Instruments Inc recommended in this report as of 31 Aug 2023.
- 3. DBS Bank Ltd, DBS HK, DBSVS, DBSVUSA, or their subsidiaries and/or other affiliates have a net long position exceeding 0.5% of the total issued share capital in NIKKOAM-ICBCSG CH BD ETF-SGD, NIKKOAM-ICBCSG CH BD ETF-RMB, recommended in this report as of 19 Sep 2023.
- DBS Bank Ltd, DBS HK, DBSVS, DBSVUSA, or their subsidiaries and/or other affiliates beneficially own a total of 1% or more of any class of common equity securities of NIKKOAM-ICBCSG CH BD ETF-SGD, NIKKOAM-ICBCSG CH BD ETF-RMB as of 19 Sep 2023
- 5. DBS Bank Ltd, DBS HK, DBSVS, DBSVUSA, their subsidiaries and/or other affiliates beneficially own a total of 5% or more of any class of common equity securities of NIKKOAM-ICBCSG CH BD ETF-SGD, NIKKOAM-ICBCSG CH BD ETF-RMB as of 19 Sep 2023.

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

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

#### **ETF in Focus**



#### Compensation for investment banking services:

6. DBSVUSA does not have its own investment banking or research department, nor has it participated in any public offering of securities as a manager or co-manager or in any other investment banking transaction in the past twelve months. Any US persons wishing to obtain further information, including any clarification on disclosures in this disclaimer, or to effect a transaction in any security discussed in this document should contact DBSVUSA exclusively

#### Disclosure of previous investment recommendation produced:

7. DBS Bank Ltd, DBS Vickers Securities (Singapore) Pte Ltd ("DBSVS"), their subsidiaries and/or other affiliates may have published other investment recommendations in respect of the same securities / instruments recommended in this research report during the preceding 12 months. Please contact the primary analyst listed on page 1 of this report to view previous investment recommendations published by DBS Bank Ltd, DBS Vickers Securities (Singapore) Pte Ltd ("DBSVS"), their subsidiaries and/or other affiliates in the preceding 12 months.



RESTRIC	TIONS ON	I DISTRIBI	JTION

RESTRICTIONS OF General	This report is not directed to, or intended for distribution to or use by, any person or entity who is a citizen or
Gerierai	resident of or located in any locality, state, country or other jurisdiction where such distribution, publication,
	availability or use would be contrary to law or regulation.
Australia	This report is being distributed in Australia by DBS Bank Ltd, DBS Vickers Securities (Singapore) Pte Ltd ("DBSVS") or DBSV HK. DBS Bank Ltd holds Australian Financial Services Licence no. 475946.
	DBS Bank Ltd, DBSVS and DBSV HK are exempted from the requirement to hold an Australian Financial Services
	Licence under the Corporation Act 2001 ("CA") in respect of financial services provided to the recipients. Both DBS
	and DBSVS are regulated by the Monetary Authority of Singapore under the laws of Singapore, and DBSV HK is
	regulated by the Hong Kong Securities and Futures Commission under the laws of Hong Kong, which differ from
	Australian laws.
	Distribution of this report is intended only for "wholesale investors" within the meaning of the CA.
Hong Kong	This report has been prepared by a personnel of DBS Bank Ltd, who is not licensed by the Hong Kong Securities
Tiong Kong	and Futures Commission to carry on the regulated activity of advising on securities in Hong Kong pursuant to the
	Securities and Futures Ordinance (Chapter 571 of the Laws of Hong Kong). This report is being distributed in Hong
	Kong and is attributable to DBS Bank (Hong Kong) Limited ("DBS HK"), a registered institution registered with the
	Hong Kong Securities and Futures Commission to carry on the regulated activity of advising on securities pursuant to the Securities and Futures Ordinance (Chapter 571 of the Laws of Hong Kong). DBS Bank Ltd., Hong Kong
	Branch is a limited liability company incorporated in Singapore.
	braner is a infliced liability company incorporated in singapore.
	For any query regarding the materials herein, please contact Dennis Lam (Reg No. AH8290) at dbsvhk@dbs.com
Indonesia	This report is being distributed in Indonesia by PT DBS Vickers Sekuritas Indonesia.
Malaysia	This report is distributed in Malaysia by AllianceDBS Research Sdn Bhd ("ADBSR"). Recipients of this report,
,	received from ADBSR are to contact the undersigned at 603-2604 3333 in respect of any matters arising from or in
	connection with this report. In addition to the General Disclosure/Disclaimer found at the preceding page,
	recipients of this report are advised that ADBSR (the preparer of this report), its holding company Alliance
	Investment Bank Berhad, their respective connected and associated corporations, affiliates, their directors, officers, employees, agents and parties related or associated with any of them may have positions in, and may effect
	transactions in the securities mentioned herein and may also perform or seek to perform broking, investment
	banking/corporate advisory and other services for the subject companies. They may also have received
	compensation and/or seek to obtain compensation for broking, investment banking/corporate advisory and other
	services from the subject companies.
	Control of the contro
	Wong Ming Tek, Executive Director, ADBSR
Singapore	This report is distributed in Singapore by DBS Bank Ltd (Company Regn. No. 196800306E) or DBSVS (Company
	Regn No. 198600294G), both of which are Exempt Financial Advisers as defined in the Financial Advisers Act and
	regulated by the Monetary Authority of Singapore. DBS Bank Ltd and/or DBSVS, may distribute reports produced
	by its respective foreign entities, affiliates or other foreign research houses pursuant to an arrangement under
	Regulation 32C of the Financial Advisers Regulations. Where the report is distributed in Singapore to a person who is not an Accredited Investor, Expert Investor or an Institutional Investor, DBS Bank Ltd accepts legal responsibility
	for the contents of the report to such persons only to the extent required by law. Singapore recipients should
	contact DBS Bank Ltd at 6878 8888 for matters arising from, or in connection with the report.
Thailand	This report is being distributed in Thailand by DBS Vickers Securities (Thailand) Co Ltd.
	For any query regarding the materials herein, please contact Chanpen Sirithanarattanakul at research@th.dbs.com



#### United Kingdom

This report is produced by DBS Bank Ltd which is regulated by the Monetary Authority of Singapore.

This report is disseminated in the United Kingdom by DBS Bank Ltd, London Branch ("DBS UK"). DBS UK is authorised by the Prudential Regulation Authority and is subject to regulation by the Financial Conduct Authority and limited regulation by the Prudential Regulation Authority. Details about the extent of our regulation by the Prudential Regulation Authority are available from us on request.

In respect of the United Kingdom, this report is solely intended for the clients of DBS UK, its respective connected and associated corporations and affiliates only and no part of this document may be (i) copied, photocopied or duplicated in any form or by any means or (ii) redistributed without the prior written consent of DBS UK, This communication is directed at persons having professional experience in matters relating to investments. Any investment activity following from this communication will only be engaged in with such persons. Persons who do not have professional experience in matters relating to investments should not rely on this communication.

#### Dubai International Financial Centre

This communication is provided to you as a Professional Client or Market Counterparty as defined in the DFSA Rulebook Conduct of Business Module (the "COB Module"), and should not be relied upon or acted on by any person which does not meet the criteria to be classified as a Professional Client or Market Counterparty under the DFSA rules.

This communication is from the branch of DBS Bank Ltd operating in the Dubai International Financial Centre (the "DIFC") under the trading name "DBS Bank Ltd. (DIFC Branch)" ("DBS DIFC"), registered with the DIFC Registrar of Companies under number 156 and having its registered office at units 608 - 610, 6th Floor, Gate Precinct Building 5, PO Box 506538, DIFC, Dubai, United Arab Emirates.

DBS DIFC is regulated by the Dubai Financial Services Authority (the "DFSA") with a DFSA reference number F000164. For more information on DBS DIFC and its affiliates, please see <a href="http://www.dbs.com/ae/our-network/default.page">http://www.dbs.com/ae/our-network/default.page</a>.

Where this communication contains a research report, this research report is prepared by the entity referred to therein, which may be DBS Bank Ltd or a third party, and is provided to you by DBS DIFC. The research report has not been reviewed or authorised by the DFSA. Such research report is distributed on the express understanding that, whilst the information contained within is believed to be reliable, the information has not been independently verified by DBS DIFC.

Unless otherwise indicated, this communication does not constitute an "Offer of Securities to the Public" as defined under Article 12 of the Markets Law (DIFC Law No.1 of 2012) or an "Offer of a Unit of a Fund" as defined under Article 19(2) of the Collective Investment Law (DIFC Law No.2 of 2010).

The DFSA has no responsibility for reviewing or verifying this communication or any associated documents in connection with this investment and it is not subject to any form of regulation or approval by the DFSA. Accordingly, the DFSA has not approved this communication or any other associated documents in connection with this investment nor taken any steps to verify the information set out in this communication or any associated documents, and has no responsibility for them. The DFSA has not assessed the suitability of any investments to which the communication relates and, in respect of any Islamic investments (or other investments identified to be Shari'a compliant), neither we nor the DFSA has determined whether they are Shari'a compliant in any way.

Any investments which this communication relates to may be illiquid and/or subject to restrictions on their resale. Prospective purchasers should conduct their own due diligence on any investments. If you do not understand the contents of this document you should consult an authorised financial adviser.



United States
 This report was prepared by DBS Bank Ltd. DBSVUSA did not participate in its preparation. The research analyst(s) named on this report are not registered as research analysts with FINRA and are not associated persons of DBSVUSA. The research analyst(s) are not subject to FINRA Rule 2241 restrictions on analyst compensation, communications with a subject company, public appearances and trading securities held by a research analyst. This report is being distributed in the United States by DBSVUSA, which accepts responsibility for its contents. This report may only be distributed to Major U.S. Institutional Investors (as defined in SEC Rule 15a-6) and to such other institutional investors and qualified persons as DBSVUSA may authorize. Any U.S. person receiving this report who wishes to effect transactions in any securities referred to herein should contact DBSVUSA directly and not its affiliate.
 Other
 Jun any other jurisdictions, except if otherwise restricted by laws or regulations, this report is intended only for qualified, professional, institutional or sophisticated investors as defined in the laws and regulations of such

#### **DBS Regional Research Offices**

jurisdictions.

### HONG KONG DBS (Hong Kong) Ltd

Contact: Dennis Lam 13th Floor One Island East, 18 Westlands Road, Quarry Bay, Hong Kong Tel: 852 3668 4181 Fax: 852 2521 1812 e-mail: dbsvhk@dbs.com

#### INDONESIA

#### PT DBS Vickers Sekuritas (Indonesia)

Contact: Maynard Priajaya Arif DBS Bank Tower Ciputra World 1, 32/F Jl. Prof. Dr. Satrio Kav. 3-5 Jakarta 12940, Indonesia Tel: 62 21 3003 4900 Fax: 6221 3003 4943

e-mail: indonesiaresearch@dbs.com

#### SINGAPORE DBS Bank Ltd

Contact: Paul Yong 12 Marina Boulevard, Marina Bay Financial Centre Tower 3 Singapore 018982 Tel: 65 6878 8888 e-mail: groupresearch@dbs.com Company Regn. No. 196800306E

#### THAILAND

#### DBS Vickers Securities (Thailand) Co Ltd

Contact: Chanpen Sirithanarattanakul 989 Siam Piwat Tower Building, 9th, 14th-15th Floor Rama 1 Road, Pathumwan, Bangkok Thailand 10330 Tel. 66 2 857 7831 Fax: 66 2 658 1269

e-mail: research@th.dbs.com Company Regn. No 0105539127012

Securities and Exchange Commission, Thailand