

Monthly Cloud Technology Market Report

December 2022

HANetf & GinsGlobal

HAN-GINS Cloud Technology UCITS ETF

SKYY

59bps

IE00BDDRE924

Product Inception Date: 05/10/2018

For Professional Clients Only. Capital at risk.

All data as of 30/11/2022

This report was written by, and is the opinion of, the SKYY index providers GinsGlobal.

Key Takeaways

- SKYY added another 1.5% this month, following impressive 6.8% gain in October.
- SKYY holdings are representative of Global Cloud industry - SaaS, PaaS and IaaS.
- Top 5 & 10 weightings are half of key competitors. (12.3% and 20.9% respectively)
- SKYY's 75 holdings, low risk Equal Weighted approach ensures less MegaCap exposure.
- SKYY has the lowest PE ratios, Price/Book and Price/Sales numbers – versus competitors.
- SKYY year to date outperforming key Cloud competitors.
- Globally diversified - US 83.5%, China 8.1%, Japan 2.7%.
- Cloud revenue growth of 20% expected in 2022 – reaching ~\$600bn.
- Best November performers BANDWIDTH INC, MING YUAN, BAIDU, ALIBABA & NVIDIA CORP (See Table below).
- Asian Cloud fast tracked through speedy 5G connections - Mobile and Online Gaming fastest growing gaming area.

Source of all data: Gins Global / Solactive. Data as of 31.10.2022. **Please note that all performance figures are showing net data.** Past performance is not indicative of future performance and when you invest in ETFs, your capital is at risk.

Marco Outlook

- Pentagon \$9bn Cloud contract awarded - more Govt spending to follow.
- Largest US Govt Cloud contract split amongst Google, Amazon (AWS), Oracle & Microsoft.
- Huge US Federal & State Govt spending on Cloud Computing & Cybersecurity.
- Similar EU & Developing Country Cloud deals expected to follow.
- 50% of Global IT spend expected to shift to the Cloud by 2025.
- \$1trillion of new Revenues expected to move to the Cloud within 3 years.
- Cloud's ongoing cost savings & WFH trend - boosting adoption.
- Ultra-fast networks globally (5G, Wi-Fi 6E) = Cloud streaming dominating Videos, Gaming.
- Global Cloud gaming expected to hit \$57bn by 2027, a CAGR of 16%.
- HAN-GINS #Cloud #ETF (SKYY) low-cost, diversified way to invest in Cloud's explosive growth.
- Big Tech cloud players (Microsoft & Google) buying Gaming companies – Mobile Gaming booming.
- Potential Global Recession – belt tightening helps move to Cloud as cost savings.

For illustrative purposes only. Graph includes future data, from the period 2022-2030.

Sources available upon request. Please note that all performance figures are showing net data. Past performance is not indicative of future performance and when you invest in ETFs, your capital is at risk. When you invest in ETFs your capital is at risk.

Cloud Computing Growth - Leading 3 Players Cloud divisions

(Revenue % Growth: YoY)

	<u>MICROSOFT</u>	<u>AMAZON</u>	<u>GOOGLE</u>
3rd Qtr 2022	35%	27%	38%
2nd Qtr 2022	40%	33%	26%
1st Qtr 2022	46%	37%	44%
4th Qtr 2021	46%	40%	45%
3rd Qtr 2021	50%	39%	45%

Latest Revenue	\$20bn	\$76.5bn	\$6.9bn
-----------------------	---------------	-----------------	----------------

Source: Citywire - November 24, 2022

For illustrative purposes only.

SKYY Top Contributors – November 2022:

HOLDINGS	% Average Weight	Total Return (%)	Contribution to Return (%)
BANDWIDTH INC-CLASS A	1.47	92.59	0.87
MING YUAN CLOUD GROUP	0.71	67.48	0.32
BAIDU INC - SPON ADR	0.90	41.83	0.32
ALIBABA GROUP HOLDING-SP ADR	0.92	37.72	0.30
TUYA INC	0.63	33.17	0.19
NVIDIA CORP	1.47	25.41	0.34
EQUINIX INC	1.48	22.50	0.31
SOFTCAT PLC	1.40	19.69	0.25
KINGSOFT CLOUD HOLDINGS-ADR	1.01	19.37	0.18
HEWLETT PACKARD ENTERPRISE	1.74	17.59	0.29
EXTREME NETWORKS INC	3.04	16.89	0.49
DELL TECHNOLOGIES -C	1.47	16.64	0.23
ARISTA NETWORKS INC	1.94	15.26	0.27
FASTLY INC - CLASS A	1.00	13.78	0.14
INTERNET INITIATIVE JAPAN	1.37	11.62	0.15
VERINT SYSTEMS INC	1.30	11.01	0.14
MICROSOFT CORP	1.35	10.22	0.14

Cloud Technology Performance

As of 30.11.2022

	1M	3M	6M	YTD	12M	2Y	3Y	SI
HAN-GINS Cloud Technology UCITS ETF	1.53%	-4.21%	-10.31%	-35.07%	-34.72%	-25.58%	-4.74%	9.64%
<i>Solactive Cloud Technology Index (NTR)</i>	1.58%	-4.09%	-10.11%	-34.80%	-34.43%	-25.42%	-4.00%	11.08%

Please note that all performance figures are showing net data. Source: Bloomberg / HANetf. Data as of 30/11/2022
Performance before inception is based on back tested data. Back testing is the process of evaluating an investment strategy by applying it to historical data to simulate what the performance of such strategy would have been. Back tested data does not represent actual performance and should not be interpreted as an indication of actual or future performance. Past performance for the index is in USD. Past performance is not an indicator for future results and should not be the sole factor of consideration when selecting a product. Investors should read the prospectus of the Issuer ("Prospectus") before investing and should refer to the section of the Prospectus entitled 'Risk Factors' for further details of risks associated with an investment in this product. When you invest in ETFs and ETCs, your capital is at risk.

Product Details

HAN-GINS Cloud Technology UCITS ETF, is a UCITS compliant cloud computing ETF domiciled in Ireland.

The SKYY Cloud ETF tracks the Solactive Cloud Technology Index and seeks to provide exposure to companies active in the field of cloud computing, such as service providers or producers of equipment or software focused on cloud computing.

Please remember that the value of your investment may go down as well as up and past performance is no indication of future performance.

Visit the [SKYY Fund Page](#) for more information.

Exchange	BBG Code	RIC	ISIN	Valoren	SEDOL	Currency	TER
London Stock Exchange	SKYY LN	SKYY.L	IE00BDDRF924	-	BYVJ8T8	USD	0.59%
London Stock Exchange	SKYP LN	SKYP.L	IE00BDDRF924	-	BYVJ973	GBP	0.59%
Borsa Italiana	SKYY IM	SKYY.MI	IE00BDDRF924	-	BFX1CC0	EUR	0.59%
Deutsche Boerse Xetra	5XYE GY	5XYE.DE	IE00BDDRF924	-	BFX38L7	EUR	0.59%
SIX Swiss Exchange	SKYY SW	SKYY.S	IE00BDDRF924	44096882	BMYC3V7	CHF	0.59%



Anthony Ginsberg, GinsGlobal Index Funds

Anthony Ginsberg is the co-creator of the HAN-GINS Cloud Technology UCITS ETF (SKYY), enabling investors to gain exposure to the top 50 cloud companies across Developed and Emerging markets. SKYY tracks a rules-based index to identify and select companies involved in the field of cloud computing.

Anthony Ginsberg is the Managing Director of GinsGlobal Investment Management, a global asset management company offering a broad range of innovative index-linked products, for both retail and institutional investors. GinsGlobal designs index products for a number of leading financial institutions, including global insurers, banks and asset managers. GinsGlobal was founded in 2000 and has operations in North America, Africa, Middle East and Asia-Pacific.

Important Information

Communications issued in the UK (ETFs and ETCs)

The content in this document is issued by HANetf Limited ("HANetf") and approved by Primum Fund Management (UK) Limited ("Primum"). HANetf are an appointed representative of Primum, which is authorised and regulated by the Financial Conduct Authority. HANetf is registered in England and Wales with registration number 10697042.

Communications issued in the European Economic Area ("EEA") relating to ETFs

The content in this document is issued by HANetf Management Limited ("HML") acting in its capacity as management company of HANetf ICAV. HML is authorised and regulated by the Central Bank of Ireland. HML is registered in Ireland with registration number 621172.

Communications issued in the EEA relating to ETCs

The content in this document is issued by the relevant Issuer.

The Issuers

1. HANetf ICAV, an open-ended Irish collective asset management vehicle issuing under the terms in the Prospectus and relevant Supplement for the ETF approved by the Central Bank of Ireland ("CBI") ("ETF Prospectus") is the issuer of the ETFs. Investors should read the current version of the ETF Prospectus before investing and should refer to the section of the ETF Prospectus entitled 'Risk Factors' for further details of risks associated with an investment in the ETFs. Any decision to invest should be based on the information contained in the ETF Prospectus.
2. HANetf ETC Securities plc, a public limited company incorporated in Ireland, issuing:
 - i. the precious metals ETCs under the terms in the base prospectus approved by both the Central Bank of Ireland ("CBI"), the UK Financial Conduct Authority ("FCA") and the final terms of the precious metals (together, "Metals ETC Prospectuses");
 - ii. the carbon securities ETCs under the terms in the base prospectus approved by the UK Financial Conduct Authority ("FCA") and the relevant final terms of the carbon securities (together, "FCA Carbon ETC Prospectus"); and
 - iii. the carbon securities ETCs under the terms in the base prospectus approved by the Central Bank of Ireland ("CBI") and the final terms of the carbon securities (together, "CBI Carbon ETC Prospectus").

Investors should read the latest versions of the relevant ETC prospectus before investing and should refer to the section of the relevant ETC prospectus entitled 'Risk Factors' for further details of risks associated with an investment in the ETCs. Any decision to invest should be based on the information contained in the relevant ETC prospectus.

3. ETC Issuance GmbH, a limited liability company incorporated under the laws of the Federal Republic of Germany, issuing under the terms in the Prospectus approved by the Bundesanstalt für Finanzdienstleistungsaufsicht ("BaFin") and the final terms ("Cryptocurrency Prospectus") is the issuer of the ETCM ETCs. Investors should read the latest version of the Cryptocurrency Prospectus before investing and should refer to the section of the Cryptocurrency Prospectus entitled 'Risk Factors' for further details of risks associated with an investment in the ETCs contained in the Cryptocurrency Prospectus. Any decision to invest should be based on the information contained in the Cryptocurrency Prospectus.

The ETF Prospectus, Metals ETC Prospectus, FCA Carbon ETC Prospectus, CBI Carbon ETC Prospectus and Cryptocurrency Prospectus can all be downloaded from www.hanetf.com.

This communication has been prepared for professional investors, but the ETCs and ETFs set out in this communication (“Products”) may be available in some jurisdictions to any investors. Please check with your broker or intermediary that the relevant Product is available in your jurisdiction and suitable for your investment profile.

Past performance is not a reliable indicator of future performance. The price of the Products may vary and they do not offer a fixed income.

This document may contain forward looking statements including statements regarding our belief or current expectations with regards to the performance of certain assets classes. Forward looking statements are subject to certain risks, uncertainties and assumptions. There can be no assurance that such statements will be accurate and actual results could differ materially from those anticipated in such statements. Therefore, readers are cautioned not to place undue reliance on these forward-looking statements.

The content of this document is for information purposes, and does not constitute an investment advice, recommendation, investment research or an offer for sale nor a solicitation of an offer to buy any Product or make any investment.

An investment in an exchange traded product is dependent on the performance of the underlying asset class, less costs, but it is not expected to track that performance exactly. The Products involve numerous risks including among others, general market risks relating to underlying adverse price movements in an Index (for ETFs) or underlying asset class and currency, liquidity, operational, legal and regulatory risks. In addition, in relation to Cryptocurrency ETCs, these are highly volatile digital assets and performance is unpredictable.

The information contained on this document is not, and under no circumstances is to be construed as, an advertisement or any other step in furtherance of a public offering of securities in the United States or any province or territory thereof, where none of the Issuers (as defined below) or their Products are authorised or registered for distribution and where no prospectus of any of the Issuers has been filed with any securities commission or regulatory authority. No document or information on this document should be taken, transmitted or distributed (directly or indirectly) into the United States. None of the Issuers, nor any securities issued by it, have been or will be registered under the United States Securities Act of 1933 or the Investment Company Act of 1940 or qualified under any applicable state securities statutes.