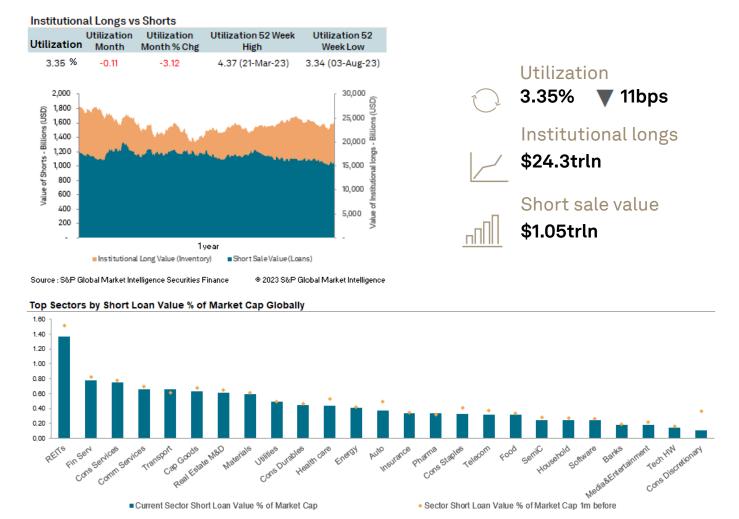
The long / short report

A geographic analysis of the long/short market by sector using the securities finance short interest data of S&P Global Market Intelligence.

Global Equities

Source: S&P Global Market intelligence Securities Finance



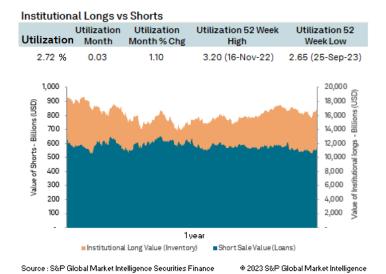
During the month, global short interest decreased across the majority of sectors. Only two global sectors experienced increases in short interest over the month. Short interest across the Transport sector increased by 5bps and short interest across the Pharmaceuticals sector increased by 1bps over the month. The largest decreases were seen across the REITS (-16bps), Consumer Discretionary (-26bps) and Healthcare (-9bps) sectors.

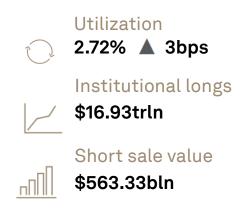
Transport remained a popular sector for short sellers over the month as global economic growth remains slower than expected and the economic slow down in China starts to impact supply chains. Some of the largest shorts across the sector were seen in the USA. Eagle Bulk Shipping Inc (EGLE) was the top short in the sector with a %SOOL of 27.09% (DCBS2), followed by Jetblue Airways Corp (JBLU) %SOOL 17.51% (DCBS 1) and Zim Integrated Shipping Services Ltd (ZIM) %SOOL 15.52% (DCBS 6).

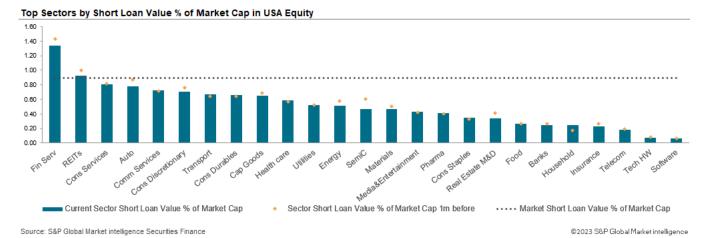
The Pharmaceutical sector continued to see some of the most shorted stocks globally. **Novavx Inc (NVAX)** remains one of the top shorts within the S&P 500 with 39.58% of its shares outstanding on loan and a DCBS of 10. Other expensive shorts within the sector included **Cassava Sciences Inc (SAVA)** DCBS 10 (%SOOL 33.03%), **Bioxcel Therapeutics Inc (BTAI)** DCBS 10 (%SOOL 29.85%) and **Paxmedica Inc (PXMD)** DCBS 10 (%SOOL 20.55%).

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Americas Equities







Average short interest across the USA fell to 88bps during the month. Household and Personal products experienced the most significant increase in short interest, climbing 8bps over the month. Other sectors to experience increases included Consumer Durables (+2bps), Healthcare (+2bps) and Consumer Staples (+2bps).

Consumer Services overtook the Auto sector to become the third most shorted sector during the month. Top shorts within Consumer Services included Papa John's International Inc (PZZA) %SOOL 20.81% (DCBS 1), Norwegian Cruise Line Holdings Ltd (NCLH) %SOOL 19.44% (DCBS 1) and Cracker Barrel Old Country Store Inc (CBRL) % SOOL 18.59% (DCBS 1). The most expensive shorts within the sector included E-Home Household Service Holdings Ltd (EJH) DCBS 10 (%SOOL 16.23%) and BTC Digital Ltd (METX) DCBS 10 (%SOOL 14.56%).

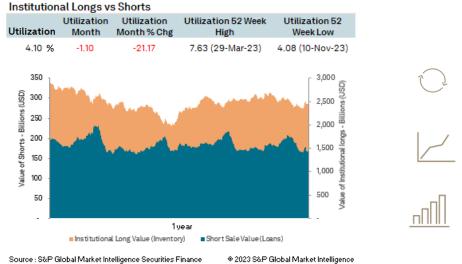
Short interest declined by 10bps across the Automobile and Component sector over the month. **Mullen Automotive (MULN)** experienced the largest decline in short interest, falling by 714bps over the month to 24.41% (% SOOL).

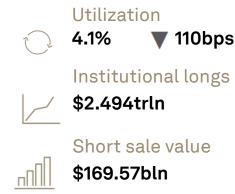
Top ten American equity shorts - Ranked by % Shares outstanding on Ioan								
Instrument Name	SEDOL	TICKER	Util. (%)	% SOOL (%)	DCBS	% Out of the Money (%)	Short Squeeze Score	Sector
Faraday Future Intelligent Electric Inc	BR51F45	FFIE	96.33	80.93	7	3.58	0	North America Automobiles & Components
Beyond Meat Inc	BJ1FDK7	BYND	96.84	41.35	10	7.19	9	North America Food, Beverage & Tobacco
Novavax Inc	BJDQXG4	NVAX	96.81	39.61	10	0.34	10	North America Pharmaceuticals, Biotechnology & Life Sciences
Blink Charging Co	BYWLZL4	BLNK	94.49	35.20	7	21.54	8	North America Consumer Discretionary Distribution & Retail
Cassava Sciences Inc	BJVLKZ9	SAVA	96.63	33.46	10	22.51	8	North America Pharmaceuticals, Biotechnology & Life Sciences
Bioxcel Therapeutics Inc	BF4VBS8	BTAI	93.44	29.83	10	87.25	3	North America Pharmaceuticals, Biotechnology & Life Sciences
Fisker Inc	BNKD957	FSR	96.32	28.76	10	3.30	9	North America Automobiles & Components
Intelligent Bio Solutions Inc	BMZMGJ5	INBS	99.31	27.28	10	0.69	0	North America Health Care Equipment & Services
Invitae Corp	BVVCNT1	NVTA	93.96	27.23	7	7.87	9	North America Health Care Equipment & Services
Blue Star Foods Corp	BQLSBR8	BSFC	88.83	24.70	10	97.90	0	North America Food, Beverage & Tobacco

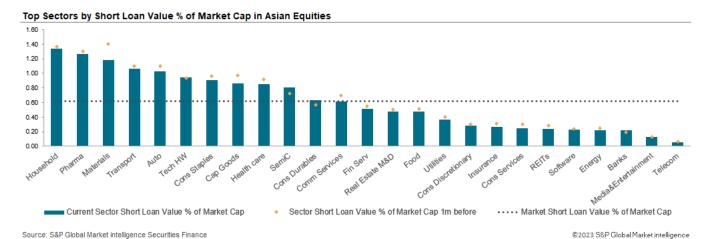
Source : S&P Global Market Intelligence Securities Finance

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APAC Equities







Average short interest stood at 62bps during the month with ten out of the twenty five sectors covered above this average. The largest increases in short interest were seen across the Semiconductor (+8bps), Consumer Durables (+6bps) and the Banking sector (+3bps).

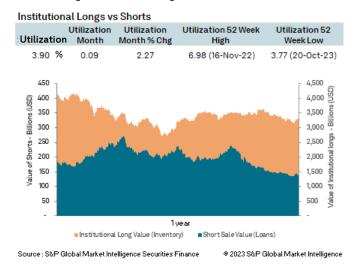
Flat Glass Group Co Ltd (6865) was the most shorted stock within the Semiconductor and Semiconductor equipment sector with 19.06% of its outstanding shares on loan. Within the APAC region, Alchip Technologies Ltd (3661) was the most expensive short within the sector with a DCBS of 7 (%SOOL 7.09%) followed by Etron Tech**nology Inc (5351)** with a DCBS of 6 (%SOOL 7.09%).

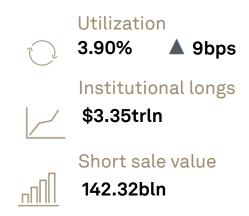
Pharmaceuticals became the second most shorted sector over the month. Delta-Fly Pharma Inc (4598) was the most shorted company within this sector with a %SOOL of 24.89% (DCBS 3), followed by Persus Proteomics Inc (4882) %SOOL 21.75% (DCBS 3) and Immuno-Biological Laboratories Co Ltd (4570) %SOOL 21.74% (DCBS 5).

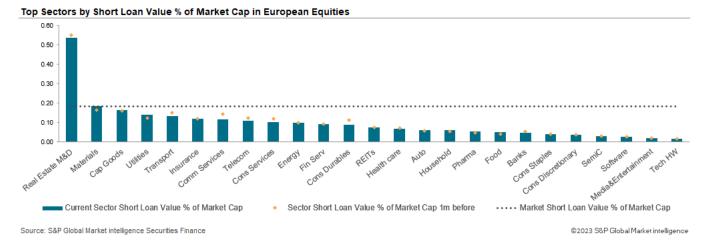
				% SOOL		% Out of the		
Instrument Name	SEDOL	TICKER	Util. (%)	(%)	DCBS	Money (%)	Score	Sector
Aozora Bank Ltd	B1G1854	8304	89.82	26.58	4	75.91	2	Japan Banks
Delta-Fly Pharma Inc	BFD20H4	4598	75.60	25.33	3	67.18	0	Japan Pharmaceuticals, Biotechnology & Life Sciences
Kushim Inc	6566089	2345	98.27	23.93	5	39.47	0	Japan Software & Services
Immuno-Biological Laboratories Co Ltd	B1P9X43	4570	94.34	22.04	5	20.59	0	Japan Pharmaceuticals, Biotechnology & Life Sciences
Perseus Proteomics Inc	BHNC9S2	4882	97.32	21.75	3	10.82	0	Japan Pharmaceuticals, Biotechnology & Life Sciences
Snow Peak Inc	BSLVC23	7816	92.01	21.68	8	0.22	0	Japan Consumer Durables & Apparel
Wuxi Apptec Co Ltd	BGHH0L6	2359	47.76	21.40	2	74	0	Asia Pharmaceuticals, Biotechnology & Life Sciences
Qd Laser Inc	BL6G536	6613	80.60	21.04	7	2.53	0	Japan Semiconductors & Semiconductor Equipment
Pilbara Minerals Ltd	B2368L5	PLS	74.25	20.59	2	0.01	10	Australasia Materials
W-Scope Corp	B5W49C9	6619	66.35	19.82	3	0.00	0	Japan Materials

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European Equities







Short interest remained low across EMEA equities during the month with the average level of short interest resting at 18bps. Short selling activity remained muted with very little change month on month seen across the vast majority of sectors. Short interest across Real Estate Management and Development remained the only sector to trend over the average despite experiencing a decline of 2bps over the month.

The Materials sector become the second most shorted over the month. **Novozymes A/S (NZYM B)** was the most shorted company within the sector with %SOOL of 14.22% (DCBS 1) followed by **Outokumpu Oyj (OUT1V)** %SOOL 7.87% (DCBS 1) and **Norske Skog ASA (NSKOG)** %SOOL 7.51% (DCBS 4). The most expensive stock to borrow was **Seri Industrial Spa (SERI)** with a DCBS 5 (%SOOL 4.68%).

As in the Materials sector, Utilities also experienced a +2bps increase in short interest. **Greenvolt Enrgias Renovaveis SA (GVOLT)** was the most shorted company with a %SOOL of 7.55% (DCBS 6) whilst **Audax Renovables SA (ADX)** was the most expensive with a DCBS of 8 (%SOOL 1.25%).

Top ten European equity shorts - Ranked by % Shares outstanding on Joan

Instrument Name	SEDOL	TICKER	Util. (%)	% SOOL (%)	DCBS	% Out of the Money (%)	Short Squeeze Score	Sector
Pharmasimple Sa	BQB9NS6	ALPHS	95.20	78.53	7	20	0	EMEA Consumer Discretionary Distribution & Retail
Energisme Sa	BMVLXW8	ALNRG	85.73	64.80	8	0	0	EMEA Software & Services
Delta Drone Sa	BMTPGJ0	ALDR	99.90	50.08	10	0	0	EMEA Capital Goods
Genomic Vision Sa	BKXGDV6	GV	58.12	33.76	10	0	0	EMEA Pharmaceuticals, Biotechnology & Life Sciences
ldorsia Ltd	BF0YK62	IDIA	95.80	23.51	8	17	0	EMEA Pharmaceuticals, Biotechnology & Life Sciences
Samhallsbyggnadsbolaget I Norden Ab	BD7Y737	SBB B	88.86	20.41	8	12	10	EMEA Real Estate Management & Development
Nagarro Se	BMT6455	NA9	91.38	13.40	8	26	0	EMEA Software & Services
Argeo As	BN2R8V6	ARGEO	70.59	13.38	7	30	0	EMEA Capital Goods
Santhera Pharmaceuticals Holding Ag	BPY0NM3	SANN	79.54	12.22	10	36	0	EMEA Pharmaceuticals, Biotechnology & Life Sciences
Havila Kystruten As	BKWHN10	HKY	97.68	9.85	10	0	0	EMEA Consumer Services

Source: S&P Global Market Intelligence Securities Finance

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Fixed Income, Government Bonds

Institutional Longs vs Shorts Utilization Utilization Utilization 52 Week Utilization 52 Utilization Month Month % Chg High Week Low 26.19 % 29.43 (28-Dec-22) 24.56 (30-Jun-23) 1.87 1,400 4,000 1,200 3,500 1,000 3,000 800 600 1,500 400 1,000 200 1vear Institutional Long Value (Inventory) ■ Short Sale Value (Loans)

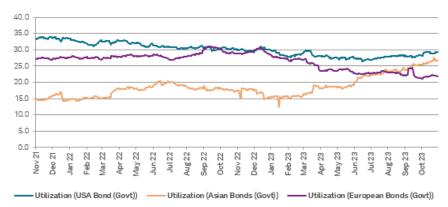
Utilization 26.19% ▲ 48bps Institutional longs \$4.33trln

Short sale value \$1.00trln

Source : S&P Global Market Intelligence Securities Finance

Index	Utilization	Month % Chg	52 Week High	52 Week Low
Asian Bonds (Govt)	26.68 %	4.55	27.51 (07-Nov-23)	12.35 (30-Jan-23)
USA Bond (Govt)	29.23 %	3.18	30.93 (28-Dec-22)	26.45 (30-Jun-23)
European Bonds (Govt)	21.89 %	2.42	30.69 (27-Dec-22)	21.16 (16-Oct-23)

Asian Bonds (Govt) vs USA Bond (Govt) vs European Bonds (Govt)



Source: S&P Global Market Intelligence Securities Finance

Top ten government bond shorts - Ranked by Utilization (%)

Instrument Name	ISIN	Util. (%)	DCBS
Germany, Federal Republic Of (Government) (0% 04-Jan-2031)	DE0001142164	99.72	1
Germany, Federal Republic Of (Government) (0% 15-Aug-2046)	DE0001108744	99.42	1
Australia, Commonwealth Of (Government) (0.25% 21-Nov-2025)	AU0000095457	93.62	1
United Kingdom Of Great Britain And Northern Ireland (Government) (1.25% 22-Jul-2027)	GB00BDRHNP05	87.42	1
United Kingdom Of Great Britain And Northern Ireland (Government) (4.25% 07-Dec-2027)	GB00B16NNR78	86.12	1
United Kingdom Of Great Britain And Northern Ireland (Government) (4.75% 07-Dec-2030)	GB00B24FF097	85.29	1
United States Treasury (0.125% 15-Jan-2024)	US91282CBE03	83.75	1
United Kingdom Of Great Britain And Northern Ireland (Government) (0.125% 31-Jan-2028)	GB00BMBL1G81	83.52	1
United Kingdom Of Great Britain And Northern Ireland (Government) (2% 07-Sep-2025)	GB00BTHH2R79	82.34	1
United Kingdom Of Great Britain And Northern Ireland (Government) (0.125% 30-Jan-2026)	GB00BL68HJ26	80.79	1

Source: S&P Global Market Intelligence Securities Finance

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Corporate Bonds

Institutional Longs vs Shorts Utilization Utilization Utilization 52 Week Utilization 52 Utilization Month Month % Chg Week Low High 5.93 % 0.17 2.97 6.29 (20-Mar-23) 5.70 (03-Oct-23) 450 5,000 4,500 🕏 400 Value of Shorts - Billions (USD) 4,000 350 3.500 7 300 3.000 250 2,500 200 2,000 150 1,500 100 1,000 50 500 1year Institutional Long Value (Inventory) ■Short Sale Value (Loans)

Utilization

5.93% ▲ 17bps

Institutional longs

\$4.17trln

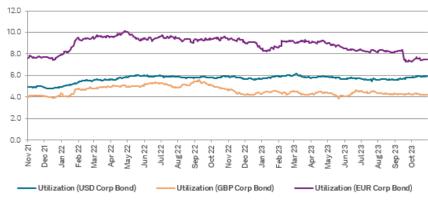
Short sale value

\$268.41bln

Source : S&P Global Market Intelligence Securities Finance

Index	Utilization	Month % Chg	52 Week High	52 Week Low
GBP Corp Bond	4.24 %	-0.88	4.72 (21-Nov-22)	3.82 (05-Jun-23)
USD Corp Bond	5.93 %	2.60	6.15 (20-Mar-23)	5.47 (04-Aug-23)
EUR Corp Bond	7.50 %	1.83	9.49 (05-Dec-22)	7.28 (16-Oct-23)

GBP Corp Bond vs USD Corp Bond vs EUR Corp Bond



Source : S&P Global Market Intelligence Securities Finance

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Top ten corporate bond shorts - Ranked by Utilization (%)

Instrument Name	ISIN	Util. (%)	DCBS
Very Group Funding Plc (6.5% 01-Aug-2026)	XS2370618618	90.10	3
Canada Housing Trust No 1 (5.438% 15-Mar-2025)	CA13509PHL00	89.75	1
Assemblin Group Ab (8.964% 05-Jul-2029)	XS2637969341	87.03	2
Sappi Papier Holding Gmbh (3.625% 15-Mar-2028)	XS2310951103	85.42	2
Landesbank Hessen Thueringen Girozentrale (0.5% 19-Jan-2037)	XS2433240764	84.06	1
Teleperformance Se (0.25% 26-Nov-2027)	FR0014000S75	83.79	3
Virgin Media Finance Plc (3.75% 15-Jul-2030)	XS2189766970	83.73	2
Banco Santander Sa (0.1% 27-Feb-2032)	ES0413900608	83.56	1
Apple Inc (4.3% 10-May-2033)	US037833EV87	82.01	4
Intrum Ab (9.25% 15-Mar-2028)	XS2566291865	81.99	3

Source: S&P Global Securities Finance

Min \$5M available to borrow

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Data term library

Utilization - Percentage of securities in lending programs which are currently out on loan calculated as the Lender Value on Loan divided by Lendable Value %.

%SOOL (%) - % of shares outstanding on loan—Percentage of shares outstanding that are out on loan

DCBS - Daily Cost of Borrow Score; a number from 1 to 10 indicating the cost of borrow based on 7 day fees, where 1 is cheapest and 10 is most expensive.

% Out the money (%) - Short positions that are experiencing losses as a percentage of the total number of shares on loan. A high out of the money percentage is indicative of a potential short squeeze.

Short squeeze score - Proprietary model utilizing transaction level data to identify names where short sellers are facing capital constraints, and therefore have increased potential to cover positions. Score of 1-10. Most likely to squeeze names have a rank closer to 1. and less likely to squeeze names have a score closer to 10. A score of 0 indicates negligible capital constraints as this security is not considered as highly shorted.

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