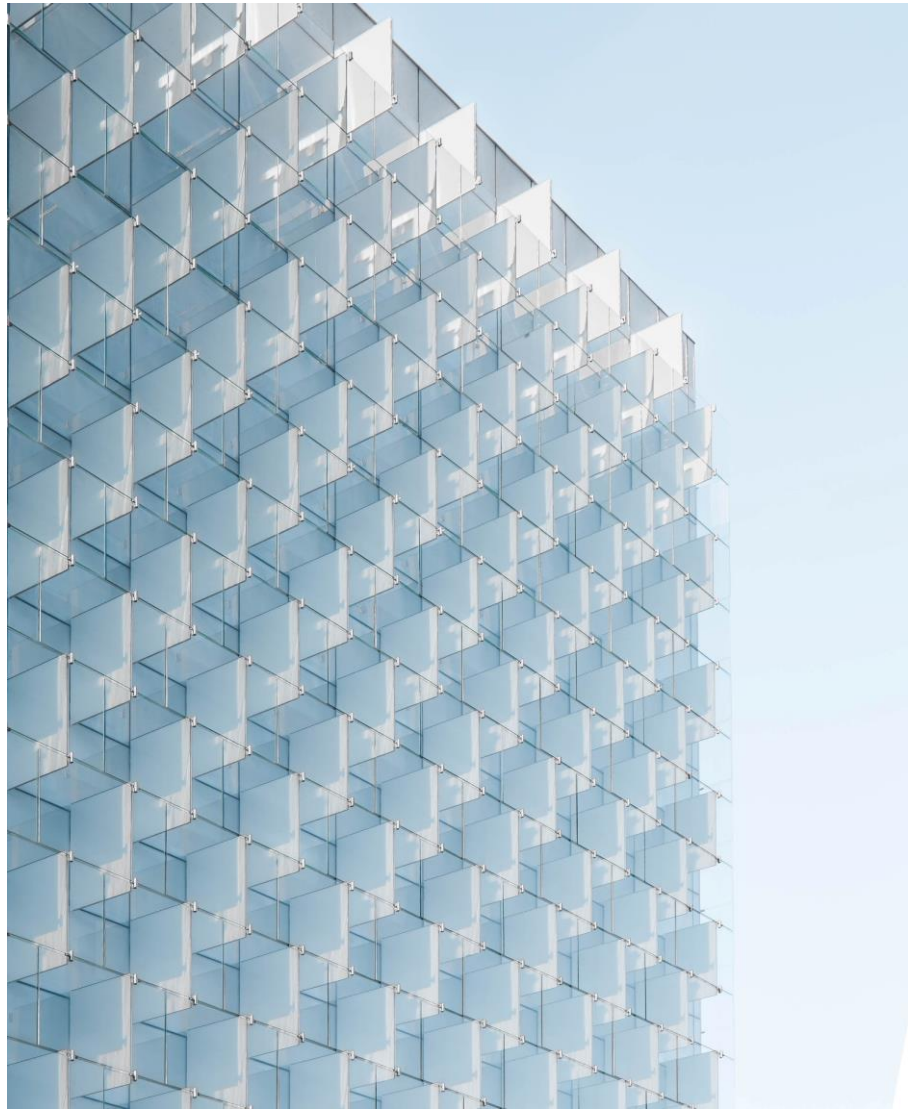


Securities Finance Q3 2023 Snapshot



Securities Finance Q3 2023 Snapshot

Securities lending revenues start to trend lower, generating \$3.131B during Q3 2023

- Quarterly revenues start to trend lower following recent highs
- US equity revenues fall as specials activity declines
- Asia equities make a comeback, posting a 20% YoY increase in revenues
- Lendable increases but balances decline throughout the quarter

Global Securities Finance Snapshot - Q3 2023

Asset Class	Q3 Revenue (\$M)	Rev YoY % Change	Avg Balances (\$B)	Bal YoY % Change	Avg Fee %	Fee YoY % Change	Avg Lendable (\$B)	Lendable YoY % Change	Avg Utilization %	Util YoY % Change
All Securities	3,131	-7%	2,520	-9%	0.49%	1%	33,072	8%	5.8%	-17%
All Equity	2,363	-10%	1,171	-10%	0.80%	-1%	24,545	10%	3.4%	-18%
Americas Equity	1,295	-13%	643	-9%	0.79%	-6%	17,681	9%	2.8%	-17%
Asia Equity	605	20%	226	8%	1.06%	11%	2,577	11%	5.2%	-5%
EMEA Equity	223	-25%	175	-27%	0.50%	2%	3,473	12%	4.0%	-35%
ADR	59	-43%	27	-2%	0.85%	-42%	234	1%	8.7%	-3%
ETP	150	-26%	93	-12%	0.64%	-17%	474	9%	10.5%	-14%
Government Bond	464	-2%	1,064	-10%	0.17%	9%	4,209	8%	20.0%	-19%
Corporate Bond	279	11%	262	-2%	0.42%	13%	4,009	2%	5.6%	-3%

Note: Includes only transactions with positive fees

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Source: S&P Global Market Intelligence Securities Finance

With the U.S. debt ceiling and bank solvency concerns in the rear-view mirror, financial markets reverted to the familiar themes of growth, inflation and central bank decision making. Across most developed markets, inflation moderated, and investor focus moved to peak rates and the end of tightening policy.

Economic data remained resilient in the US, the term “US exceptionalism” gained credence amongst market participants. Ever-increasing equity markets (the NASDAQ posted its best H1 returns for 40 years) and strong economic data pointed to a likely soft landing.

In Europe, the ECB raised interest rates to their highest level since the creation of the Euro and European economies started to show signs of weakness. In Asia, the Bank of Japan finally loosened its grip on bond yields in a sign that it may be ready to normalize monetary policy. However, hopes of a Chinese economic rebound post COVID, quickly faded as property and manufacturing sector failed to recover.

In the fixed income markets, yield curve inversion remained a common theme, with a reversal not projected before 2024. Despite yield curve inversion historically signifying an oncoming recession, 2023 appears to be the exception to the rule. If the inversion were to last until April 2024, it would be the longest period of inversion ever recorded.

A deluge of U.S. Treasury issuance was required to plug the gap left by the debt ceiling showdown during Q2. The additional

supply was successfully absorbed but was a key factor in pushing yields higher with September posting the highest yields since 2007 for the 5-year and 10-year Treasury.

The US was stripped of its top-tier sovereign credit grade by Fitch Ratings, shrinking the world’s AAA debt options. The agency criticized the country’s ballooning deficit and “erosion of governance” that has led to repeated debt limit clashes over the past two decades.

In Europe, commentators warned of stagflation as bond yields reacted to sticky inflation and lower than expected economic growth. Whilst in the UK, HM Treasury released plans to end the ban on naked short selling of sovereign debt.

In Asia, the yield on the 10-year Japanese bond increased to its highest level since 2014. This led European and US bond yields to rise as speculation that higher yields in Japan may lead investors to repatriate cash — Japanese investors are one of the biggest foreign holders of international government debt.

In the equity markets, during July, volatility remained low, and the technology sector continued to be a major focus. US stock markets continued to rally with the S&P500 logging the largest monthly gain since 2021. During August, the completion of the AMC / APE share conversion, after many months of uncertainty, concluded one of the highest revenue producing securities lending transactions to date.

In Europe, the surprise announcement of an Italian banking tax in August sent shock waves through the country's stock market. Banking shares declined, sending regional stock prices lower. More concerns regarding the health of the Chinese economy started to be felt as property shares traded special after Country Garden Co Ltd missed bond coupon payments. Weakness in the Chinese economy also weighed on European share prices as concerns around exports grew.

September marked the reemergence of IPO activity in the US as two of the largest offerings year to date took place. ARM Holdings (ARM UW) and Instacart (CART) both took advantage of buoyant equity markets and hit their price targets when issued. Both companies rose steeply following their trading debuts leaving the door open to further corporate activity in the coming months.

In the securities finance markets, revenues of \$3.131B were generated over the quarter, representing a 7% decrease YoY. Average fees increased by 1% YoY to 49bps and as equity markets continued to climb higher over the period, lendable values increased whilst balances declined, pushing utilization lower by 17% YoY to 5.8%.

In the equity markets, over the first two months of the quarter, Americas equities led the charge, as healthy specials revenues continued to help generate strong returns within a rising equity market. The advent of corporate activity with the consolidation of APE shares into the AMC line and the Kenvue (KVUE) spin off by Johnson and Johnson (JNJ) provided strong revenue opportunities for market participants. These two high revenue producing opportunities held revenues higher than otherwise may have been expected given the fall in balances.

APAC equities were the rising star throughout the quarter with growing momentum seen in the revenue numbers. After the 4% YoY increase in revenues seen during Q2, continued strong performance led to Q3 revenues increasing by 20% YoY to \$605M. Strong performance was seen in Japan, South Korea, and Taiwan.

EMEA equities experienced a more difficult quarter as revenues declined by 25% YoY and balances declined by 27% YoY. Utilization declined 35% YoY to 4% as a result, marking a multi-quarter low. Quarterly revenue declines were seen across all of the major EMEA equity lending markets with only Denmark, Finland and the Netherlands seeing any revenue growth YoY.

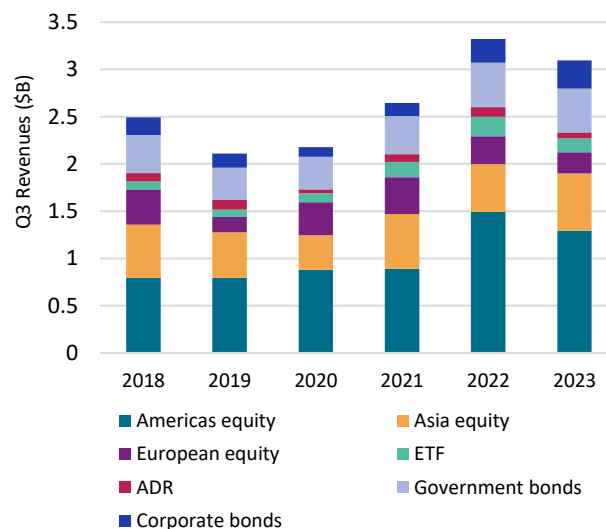
Exchange traded funds continued to see a decline in both borrowing demand and revenues following a banner year

during 2022. Revenues across the asset class declined by 26% YoY as demand for corporate bond ETFs declined.

In the fixed income markets, government bond balances declined 10% and revenues declined by 2%. Stronger fees (+9% YoY) have been keeping revenues higher throughout the year as an active specials market in short-dated bonds continues to push average fees higher.

In the corporate bond markets, revenues continued to grow, with the asset class posting an 11% increase YoY. Both balances and utilization did start to trend lower over the quarter, possibly pointing towards the end of a period of enhanced demand that the asset class has experienced throughout the rate rising cycle.

Q3 Securities Finance revenues By Asset Class



Source: S&P Global Market Intelligence Securities Finance
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In summary, YTD revenues remain higher than at the same point during 2022, however, September saw a steep decline from some of the record highs seen during the months of Q1 and Q2. A fall in US specials activity and a pause in the stock market rally has made borrowers more cautious as growing uncertainty started to extend into the securities lending markets.

APAC Equities

South Korean equities see strong demand as volatility enters the market

The World Bank downgraded China's 2024 growth forecast during the quarter from 4.8% to 4.4% as the country continues to deal with softer global manufacturing demand and a number of challenges within the property sector. The slowdown represents the slowest growth rate since the 1960's (excluding Covid) which continued to weigh upon both regional and global economic data.

Japan remained a strong focus for investors during the quarter as its benchmark equity index continued its strong performance. Both regional and global investors remained glued to the announcements made by the Bank of Japan as speculation of a normalization in interest rates and an end to its yield curve controls continued to grow. Being one of the largest investors in international assets, any moves made to increase domestic yields on Japanese government bonds is likely to impact global markets.

The APAC region experienced strong equity market momentum in Japan, Hong Kong, Taiwan, and South Korea over the month, breathing new life into the securities lending market. As a result, Asian equities posted another strong quarter, generating a 20% increase in revenues YoY. Revenues were buoyed by a substantial increase in revenues within South Korea, where returns increased by an impressive 92% YoY, as well as ongoing strong performance in Japan (+21%) Taiwan (+10%) and Hong Kong (+6%). There was only one major market within the region to buck this trend, Australia (-44%).

The impressive rise in Korean borrowing during the quarter was driven by the emergence of a "meme" stock craze in the country. Like the US, retail investors are

Overview



Q3 Revenues

\$605M ▲ 20%



Average Balances

\$226B ▲ 8%



Weighted Average Fee

1.06% ▲ 11%



Average Lendable

\$2.58T ▲ 11%

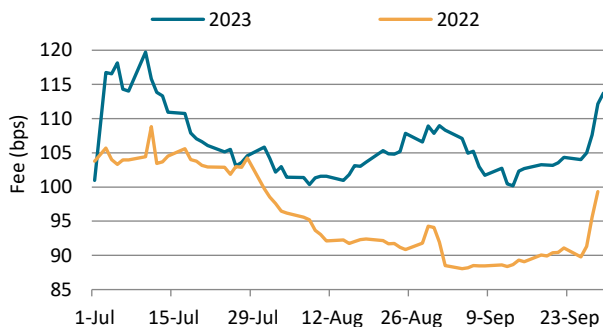


Average Utilization

5.2% ▼ -5%

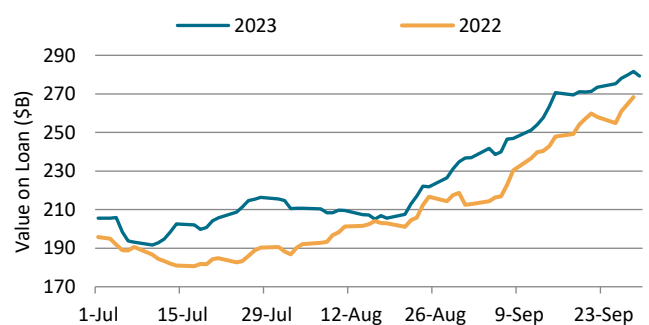
supporting online tipsters; one such tipster known as "Mr. Batt-Man" or "Mr. Battery" has gained a substantial following, blogging about the EV sector which has experienced vast share price gains as a result, e.g., Ecopro Co Ltd (086520) (YTD 715%). Local regulators have expressed concerns about volatility and warned investors of the risks of rapid price movements and the use of margin loans as a result.

Q3 Fee Trend



Source: S&P Global Market Intelligence Securities Finance © 2023 S&P Global Market Intelligence

Q3 Balance Trend



Source: S&P Global Market Intelligence Securities Finance © 2023 S&P Global Market Intelligence

Revenues generated by South Korean equities grow 92% YoY

APAC equity revenues increase 20% YoY

APAC balances climbed by 8% YoY whilst falling across EMEA and the Americas

Average fees grow by an impressive 29% YoY in Hong Kong

Country Details

Country	Q3 Revenue (\$M)	Rev YoY % Change	Avg Balances (\$B)	Bal YoY % Change	Avg Fee	Fee YoY % Change	Avg Lendable (\$B)	Lendable YoY % Change	Avg Util	Util YoY % Change
Japan Equity	171	21%	135	10%	0.50%	12%	1,131	17%	6.5%	-7%
Taiwan Equity	148	10%	23	15%	2.60%	-5%	154	72%	7.1%	-30%
South Korea Equity	141	92%	22	47%	2.49%	31%	169	18%	7.5%	27%
Hong Kong Equity	106	6%	26	-18%	1.63%	29%	526	-4%	3.8%	-13%
Australia Equity	24	-44%	16	-6%	0.60%	-40%	467	5%	2.9%	-11%
Malaysia Equity	6	93%	1	79%	4.36%	9%	11	-3%	3.3%	37%
Singapore Equity	4	10%	2	7%	0.74%	0%	63	5%	3.1%	4%
Thailand Equity	3	-14%	1	-16%	1.89%	1%	19	13%	3.2%	-31%
New Zealand Equity	0.45	-19%	0.32	13%	0.55%	-28%	10	3%	3.0%	12%

Note: Includes only transactions with positive fees

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Source: S&P Global Market Intelligence Securities Finance

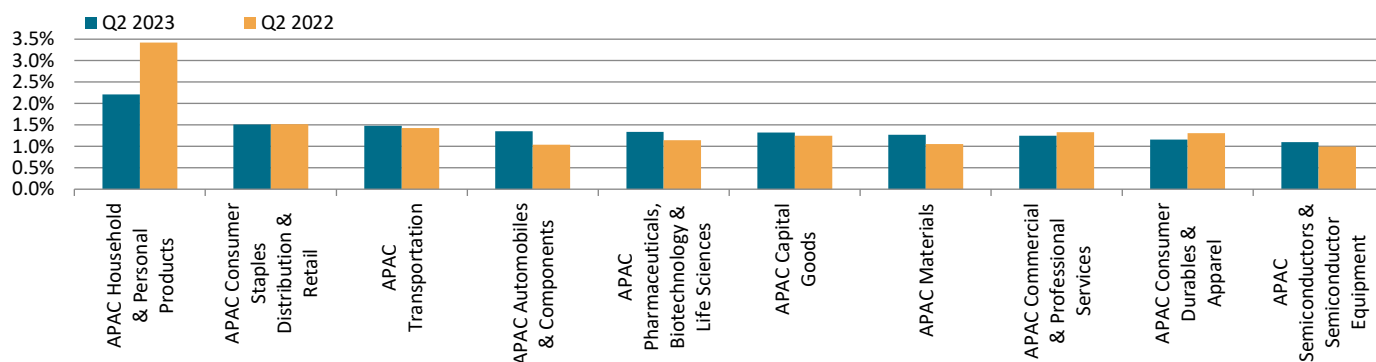
Top 10 Revenue Generating Stocks

Top Earning Assets	Ticker	Sector	Country	Revenue Generated (\$M)
Ecopro Co Ltd	086520	Asia Materials	KR	34.9
Country Garden Holdings Co Ltd	2007	Asia Real Estate Management & Development	HK	19.6
Ecopro Bm Co Ltd	247540	Asia Capital Goods	KR	10.1
East Buy Holding Ltd	1797	Asia Consumer Services	HK	8.4
Gigabyte Technology Co Ltd	2376	Asia Technology Hardware & Equipment	TW	7.0
Wistron Corp	3231	Asia Technology Hardware & Equipment	TW	5.9
Kumyang Co Ltd	001570	Asia Materials	KR	5.6
Taiwan Cement Corp	1101	Asia Materials	TW	5.5
Posco Dx Co Ltd	022100	Asia Software & Services	KR	4.9
Abalance Corp	3856	Japan Capital Goods	JP	4.5

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\$ Short Loan Value as a % of Market Cap



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EMEA Equities

Demand starts to dampen along with quarterly revenues

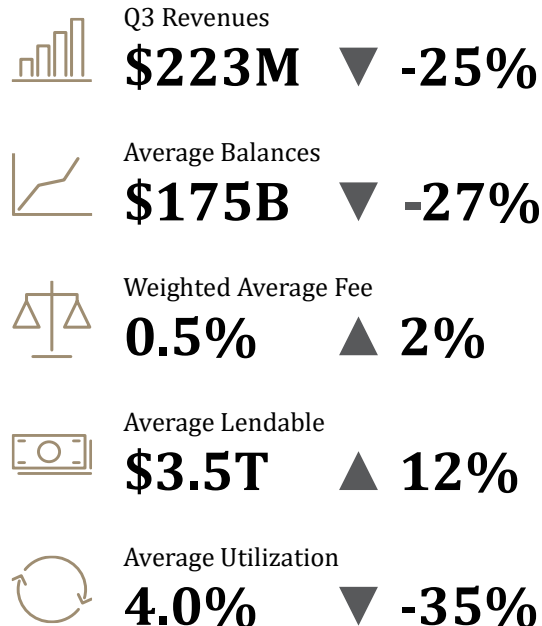
Eurozone shares made gains during the first month of the quarter, as a slowdown in inflation and positive economic growth fed through to the stock market. Despite the ECB increasing rates by 25bps, July marked the beginning of the Q2 earnings season which showed that European banks were the main beneficiary of higher rates. During August stock markets declined, pushed lower by banking shares, after the announcement of a tax on excess profits by the Italian government led to volatility across the region's markets. Traders took comfort after reassurance was later offered stating that the tax would not be greater than 0.1% of a bank's assets. Share prices then recovered from previous losses.

In the UK, markets fell lower over the quarter as concerns regarding the Chinese economy weighed on the materials and financial sectors. The continued increase in interest rates also put UK property companies under further pressure.

The retreat in stock prices across the Eurozone and the UK left valuations flat at the end of the summer months. Investor concerns regarding the possibility of further monetary tightening, following mixed inflation data for both Europe and the UK, coupled with concerns surrounding the lack of growth in China and the knock-on effect of exports, weighed on European equity markets throughout the period.

In the securities lending markets, EMEA equities showed signs of a reduction in demand throughout the quarter as revenues declined. A fall in balances was notable across the region with all of the major lending markets seeing YoY declines in balances. Borrowing demand in the UK, Germany and France remained subdued and the recent increase in activity in Sweden, that was experienced

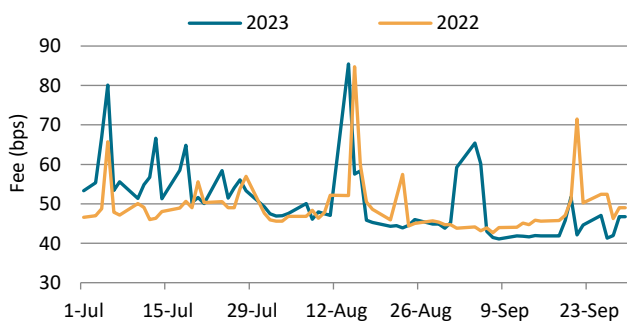
Overview



throughout the first two quarters of the year, started to dissipate.

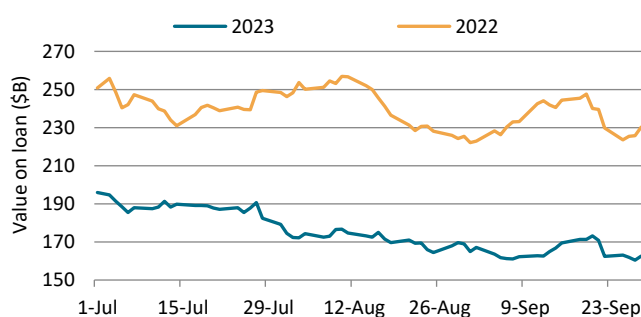
In regard to specials activity, at the end of the third quarter, \$372.6M in specials revenues had been generated, which remains 9% higher than at the same point throughout 2022. A sharp slowdown took place towards the end of the quarter, with September posting some of the lowest monthly special revenues recorded for many years.

Q3 Fee Trend



Source: S&P Global Market Intelligence Securities Finance © 2023 S&P Global Market Intelligence

Q3 Balance Trend



Source: S&P Global Market Intelligence Securities Finance © 2023 S&P Global Market Intelligence

Finland posts largest quarterly increase in revenues (+10%) across all EMEA markets

EMEA Volume Weighted Average Fees (VWAF) increased to 50bps (+2% YoY)

EMEA balances continued to decline (-27% YoY)

EMEA utilization declined by 35% YoY

Country Details

Country	Q3 Revenue (\$M)	Rev YoY % Change	Avg Balances (\$B)	Bal YoY % Change	Avg Fee	Fee YoY % Change	Avg Lendable (\$B)	Lendable YoY % Change	Avg Util	Util YoY % Change
Germany Equity	40	-34%	30	-37%	0.53%	3%	390	12%	6.1%	-46%
Sweden Equity	37	-26%	16	-19%	0.95%	-9%	164	3%	7.3%	-19%
France Equity	30	-33%	30	-48%	0.39%	28%	632	24%	3.8%	-59%
UK Equity	22	-38%	28	-17%	0.31%	-26%	925	7%	2.4%	-17%
Switzerland Equity	21	-1%	22	-10%	0.38%	10%	500	5%	3.3%	-21%
Norway Equity	15	-24%	5	-9%	1.17%	-17%	41	-18%	9.1%	16%
Netherlands Equity	15	4%	14	-23%	0.42%	39%	265	15%	4.1%	-36%
Italy Equity	8	-37%	9	-6%	0.35%	-34%	135	29%	5.3%	-31%
Spain	7	-9%	6	-19%	0.41%	1%	124	21%	3.9%	-29%
Finland	4	10%	3	-14%	0.51%	29%	49	-4%	5.3%	-8%

Note: Includes only transactions with positive fees
Source: S&P Global Market Intelligence Securities Finance

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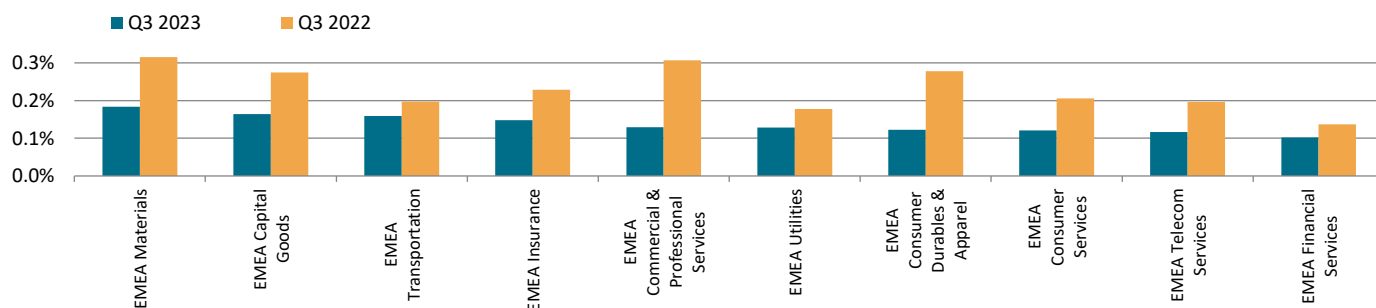
Top 10 Revenue Generating Stocks

Top Earning Assets	Ticker	Sector	Country	Revenue Generated (\$M)
Samhallsbyggnadsbolaget I Norden Ab	SBB B	EMEA Real Estate Management & Development	SE	6.6
Nagarro Se	NA 9	EMEA Software & Services	DE	6.4
Hapag Lloyd Ag	HLAG	EMEA Transportation	DE	6.1
Idorsia Ltd	IDIA	EMEA Pharmaceuticals, Biotechnology & Life Sciences	CH	6.0
Equinor Asa	EQNR	EMEA Energy	NO	5.5
Sas Ab	SAS	EMEA Transportation	SE	5.0
Varta Ag	VAR1	EMEA Capital Goods	DE	4.6
Totalenergies Se	TTE	EMEA Energy	FR	3.0
Oesterreichische Post Ag	POST	EMEA Transportation	AT	2.9
NN Group Nv	NN	EMEA Insurance	NL	2.9

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\$ Short Loan Value as a % of Market Cap



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Americas Equities

US equities lose their spark as specials activity starts to decline

US equities continued to climb higher during July as strong economic data and falling inflation figures encouraged investors to gain exposure to the asset class. Continued gains in technology companies, meme stocks and cryptocurrencies all benefited from the growing possibility of a soft-landing scenario. Technology stocks that are perceived to be the main beneficiaries of the AI revolution and biotech stocks, where investors give a greater weighting to growth opportunities than current financial results, were the main recipients of the ongoing enthusiasm. Defensive sectors such as healthcare missed out on much of the gains as the main indices continued to move ever higher.

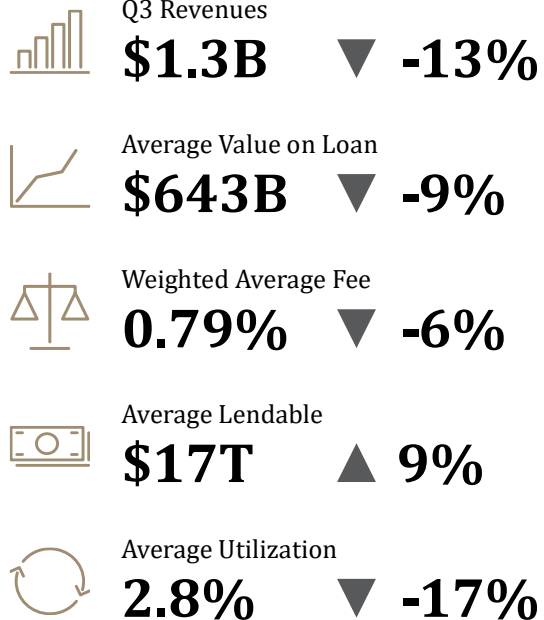
During August US equity markets started to decline. Uncertainty regarding future rate increases weighed on markets and profit taking took place across the AI inspired tech stocks. During the month, the conversion of the APE / AMC share lines was completed, ending one of the highest revenue generating securities lending trades for many years.

During September, markets focused their attention on one of the largest IPOs of the year, Arm holdings (ARM UW), which raised \$4.87B. The chip designer, still 90% owned by SoftBank, sold 95.5 million American depository shares at the top of a marketed range of \$47 to \$51 each. The success of the transaction buoyed US equity markets and increased the likelihood of more US IPOs during Q4.

In the securities lending markets Americas equities experienced their first quarterly decline of the year so far. As with many other asset classes, balances declined over the quarter in the US, Canada, and Mexico but Brazil did see a reemergence in securities lending activity after balances increased 76% YoY.

US equities led Americas equities revenues lower over the month as Canada, Mexico and Brazil all posted gains. Canada was the standout market in the region over the quarter, seeing increases in both revenues (+5%) and average fees (+5%), whilst being one

Overview

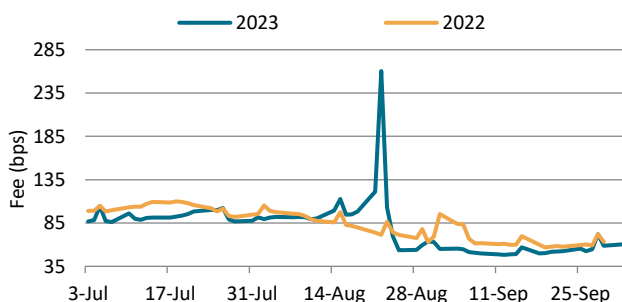


of the very few markets globally not to experience a decline in utilization.

Americas equities specials revenues declined over the quarter as the corporate activity that was generating substantial market returns closed out. Specials revenues remain at all-time highs in the region however with over \$2.96B being generated YTD by US equities alone, representing a 19% YTD increase on those seen at the same point during 2022.

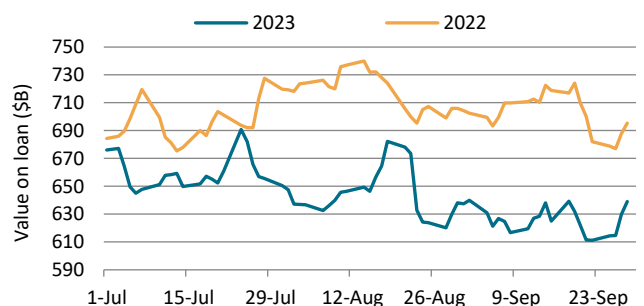
With specials revenues declining over 60% between August and September, Americas equities revenues are likely to continue trending lower into Q4.

Q3 Fee Trend



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Q3 Balance Trend



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US equity special revenues decline 61% between August and September

Revenues increase across Canada by 5% YoY

AMC generated \$198.3M during Q3

Brazil sees balances increase 76% YoY and revenues grow 191% YoY

Country Details

Country	Q3 Revenue (\$M)	Rev YoY % Change	Avg Balances (\$B)	Bal YoY % Change	Avg Fee	Fee YoY % Change	Avg Lendable (\$B)	Lendable YoY % Change	Avg Util	Util YoY % Change
USA Equity	1,186	-15%	580	-10%	0.80%	-7%	1,696	10%	2.60%	-17%
Canada Equity	98	5%	59	-2%	0.64%	5%	673	-2%	7.00%	UNCH
Brazil Equity	8	191%	2.6	76%	1.29%	66%	2,002	36%	10.1%	-53%
Mexico Equity	2	37%	0.8	-4%	0.92%	43%	0.45	33%	1.71%	-26%
ADR	58	-43%	28	-2%	0.85%	-42%	234	1%	8.74%	-3%

Note: Includes only transactions with positive fees
Source: S&P Global Market Intelligence Securities Finance

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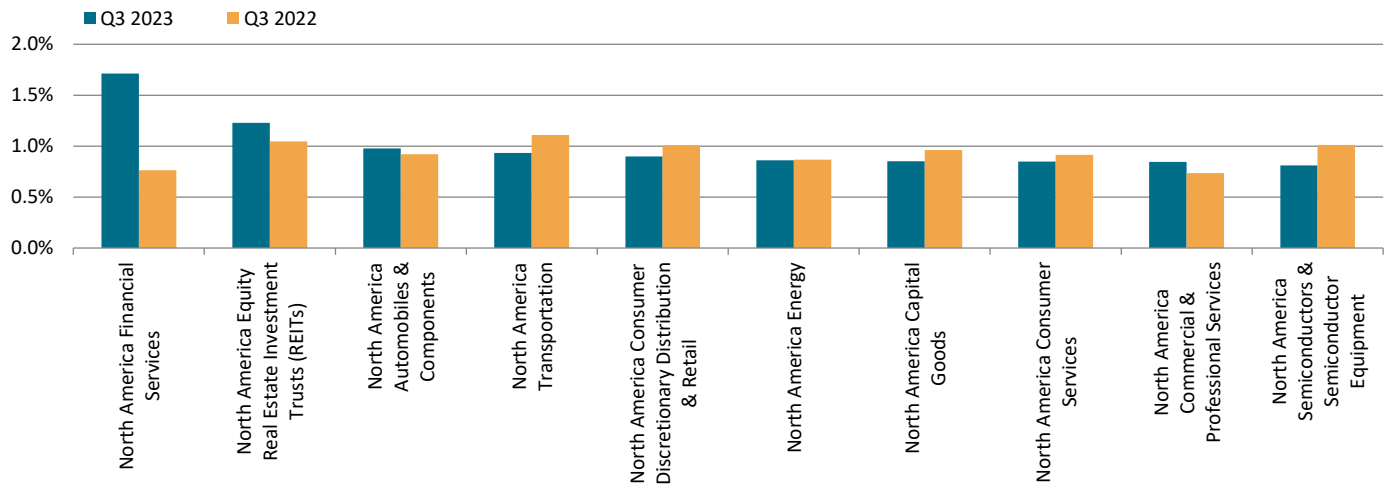
Top 10 Revenue Generating Stocks

Top Earning Assets	Ticker	Sector	Country	Revenue Generated (\$M)
AMC Entertainment Holdings Inc	AMC	North America Media and Entertainment	US	198.3
Nikola Corp	NKLA	North America Capital Goods	US	70.9
Sirius Xm Holdings Inc	SIRI	North America Media and Entertainment	US	67.8
Kenvue Inc	KVUE	North America Household & Personal Products	US	67.0
Johnson & Johnson	JNJ	North America Pharmaceuticals, Biotechnology & Life Sciences	US	34.5
Beyond Meat Inc	BYND	North America Food, Beverage & Tobacco	US	34.1
C3.Ai Inc	AI	North America Software & Services	US	28.4
Visa Inc	V	North America Financial Services	US	22.0
Fisker Inc	FSR	North America Automobiles & Components	US	21.7
Chargepoint Holdings Inc	CHPT	North America Capital Goods	US	16.2

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\$ Short Loan Value as a % of Market Cap



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Exchange Traded Products

Focus shifts back to corporate bond and main index tracking ETF's as market conditions start to change

Global ETF AUM reportedly reached a record high at the beginning of the third quarter as assets surpassed the \$10.9T threshold. In EMEA, European bond ETFs also posted record inflows as investors looked to cash in on higher yields after many years of negative interest rates.

Technology focused ETFs continued to create headlines over the quarter following the impressive returns generated during the first half of the year (Invesco QQQ H1 return +39.14%). Over the three-month period, a recovery of +35% was also seen in the SPDR S&P Regional Banking ETF (KRE) – the ETF that gained a lot of interest during the banking crisis at the beginning of the year - which was seen as growing confidence in the US regional banking sector. Actively managed exchange traded funds came back into fashion during the quarter as the future of the global economy became increasingly difficult to predict. Active ETFs account for approximately 4% of all ETF AUM but received 23% of the inflows to the month of August.

During August, global exchange-traded funds received \$65 billion in inflows globally, down from \$90 billion in July. China dominated the ETF headlines during the month, after large inflows were seen into four exchange traded funds tracking the CSI 300 index. This raised questions in the financial press of state backed buying, following a downturn in the Chinese economy and a decline in share prices. The four funds reportedly experienced inflows of \$4.4B in the space of eight days. Over the course of August, Chinese equity ETFs amassed \$20.6B in inflows, more than twice the amount seen during July. As investors in the US expected the Fed to keep rates higher for longer, outflows were seen in US treasury 20year+ funds (TLT for example).

Cryptocurrency ETFs continued to appear in the headlines throughout the quarter, as the race to be the first provider to offer a spot Bitcoin ETF intensified. Regulators remained cautious of granting permission given the volatility in the underlying asset.

Overview



Q3 Revenues

\$150M ▼ **-26%**



Average Value on Loan

\$93B ▼ **-12%**



Weighted Average Fee

0.64% ▼ **-17%**



Average Lendable

\$474B ▲ **9%**



Average Utilization

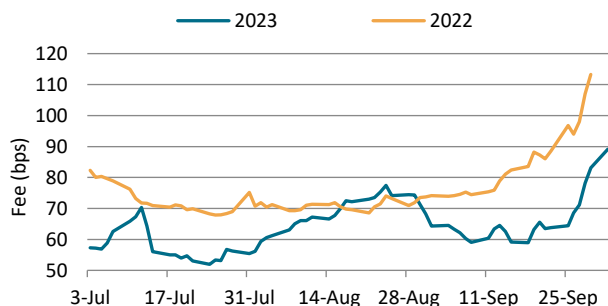
10.5% ▼ **-14%**

In the securities lending markets, following a banner year in 2022, exchange traded products continued to see declines in revenues, balances, fees, and utilization.

Exchange traded funds across all regions experienced declines in all metrics over the quarter. Americas ETFs did experience an increase in average fees between July and September, despite still trending lower YoY, which may point towards a better fourth quarter for the asset class.

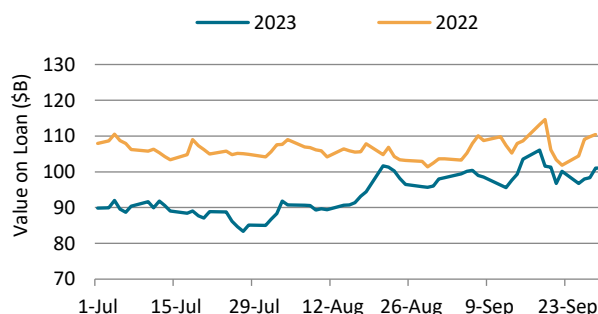
Lendable supply increased significantly across European and US ETFs during the quarter, representing greater participation in this market.

Q3 Fee Trend



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Q3 Balance Trend



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HYG reclaims top spot as highest revenues generating ETF over the quarter

Revenues declined by 26% YoY

American ETFs continued to dominate demand

European ETFs lendable supply increased by 17% YoY

Regional Details

Regional	Q3 Revenue (\$M)	Rev YoY % Change	Avg Balances (\$B)	Bal YoY % Change	Avg Fee	Fee YoY % Change	Avg Lendable (\$B)	Lendable YoY % Change	Avg Util	Util YoY % Change
Americas ETFs	129	-25%	87	-12%	0.59%	-15%	320	6%	14.4%	-12%
European ETFs	15	-39%	4	-25%	1.42%	-20%	89	17%	3.0%	-33%
Asia ETFs	3	-21%	2	65%	0.81%	-51%	3.6	-14%	12.1%	52%

Note: Includes only transactions with positive fees
Source: S&P Global Market Intelligence Securities Finance

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Top 10 Revenue Generating Stocks

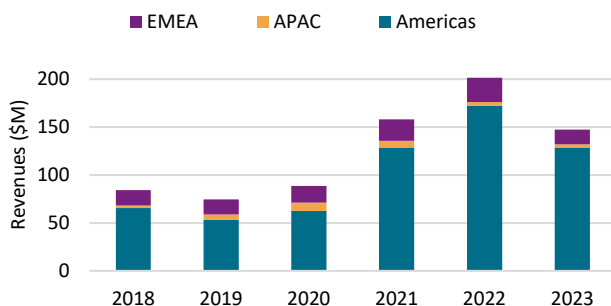
Top Earning Assets	Ticker	Country	Sector	Revenue Generated (\$M)
Ishares Iboxx High Yield Bond Etf	HYG	US	Fixed Income	23.9
Spdr S&P Biotech Etf	XBI	US	Equity	7.2
Ishares Russell 2000 Etf	IWM	US	Equity	4.8
Ishares National Muni Bond Etf	MUB	US	Fixed Income	4.1
Ark Innovation Etf	ARKK	US	Equity	3.7
Spdr Bloomberg Hgh Yild Bnd Etf	JNK	US	Fixed Income	3.1
Spdr S&P 500 Etf	SPY	US	Equity	2.7
Invsc Senior Loan Etf	BKLN	US	Fixed Income	2.5
Ishares Iboxx Invt Grade Bond Etf	LQD	US	Fixed Income	2.4
Invsc Qqq Trust Srs 1 Etf	QQQ	US	Equity	2.3

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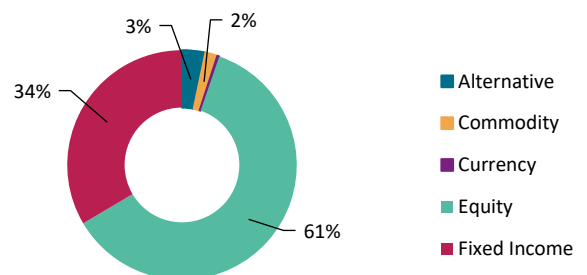


Q3 Lending Revenues by Region



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Q3 Lending Revenues by Asset Class



Source: S&P Global Market Intelligence Securities Finance

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Corporate Bonds

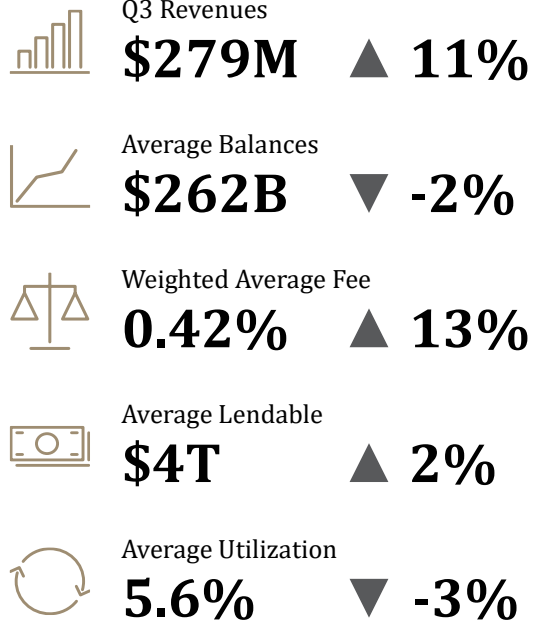
Balances start to decline but average fees climb higher

Corporate bond investors started putting their cash to work during the quarter as recessionary fears started to ease. The proportion of investment-grade investors reporting above-normal cash levels declined to 26% in July from 35% in May, reaching the lowest point in two years. Softer data and the retrenchment of recessionary fears were supportive of credit markets during July with US and European investment grade and high yield bonds generating positive returns. Concerns regarding credit deterioration started to fall as the probability of a soft landing in the US increased. High-yield bonds outperformed investment-grade bonds through much of the quarter as investors became less concerned about a potential economic downturn. This trend took place despite signals from the Federal Reserve that interest rates could increase further and stay elevated for some time.

Credit markets experienced a weaker performance during August as European investment grade bonds reflected weaker economic sentiment across Europe. Despite this, a wave of new deals hit global debt markets during the month as investment-grade companies raced to raise capital, as markets became more optimistic about central banks nearing the end of their tightening cycles.

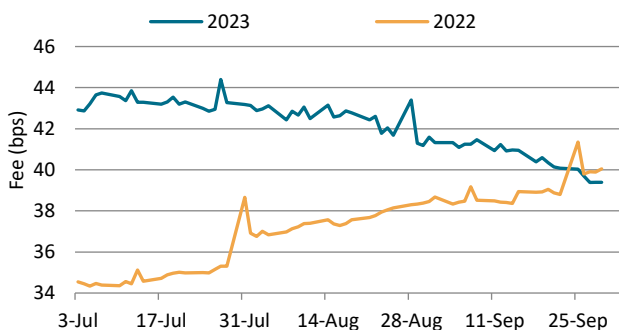
Strong corporate debt issuance carried over into September with a rush by US companies looking to issue bonds. Firms sold more than \$110 billion in bonds during the first week of September, the busiest ever start to the month, though supply tapered later on. US corporate bond markets moved toward shorter-term debt during the quarter, leading to the lowest average maturity in more than a decade - 10 years for corporate bonds issued in 2023. The high cost of borrowing and the expectation that borrowing costs will decline when refinancing shorter-dated debt, were the main driving forces behind the shift.

Overview



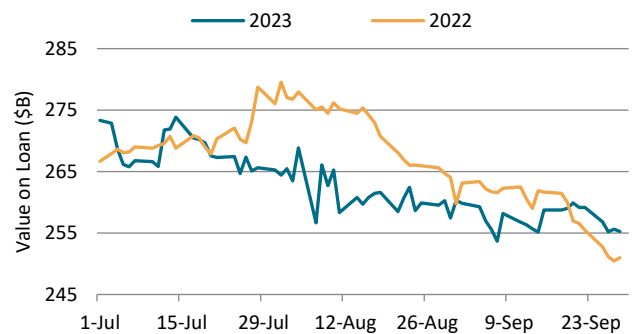
In the securities lending markets corporate bonds continued to provide strong revenues for lenders. The asset class posted another YoY quarterly increase in revenues despite a 2% decline in balances. Average fees continued to grow and despite falling during the quarter, remained 13% higher than during Q3 2022. Average fees increased across conventional, asset backed and convertible bonds YoY, representing the strong demand being seen for the asset class in the current interest rate environment. Fees declined throughout the quarter, which is the inverse of the trend seen during Q3 2022 when impending changes to monetary policy started to stoke demand.

Q3 Fee Trend



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Q3 Balance Trend



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Revenues increased by 11% YoY to \$279M

Investment grade bonds generated the strongest returns over the quarter

USD denominated corporate bonds continued to dominate demand

Volume Weighted Average Fee (VWAF) of 42bps

Asset Class Details

Asset Class	Q3 Revenue (\$M)	Rev YoY % Change	Avg Balances (\$B)	Bal YoY % Change	Avg Fee	Fee YoY % Change	Avg Lendable (\$B)	Lendable YoY % Change	Avg Util	Util YoY % Change
Conventional Bonds	267	14%	259	-1%	0.41%	15%	3,656	3%	6.09%	-4%
Convertible Bonds	12	-27%	2.92	12%	1.68%	12%	42	-14%	4.75%	-26%
Asset Backed Securities	0.16	19%	0.24	-23%	0.27%	55%	311	-14%	0.07%	-7%

Note: Includes only transactions with positive fees
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Top 10 Revenue Generating Bonds

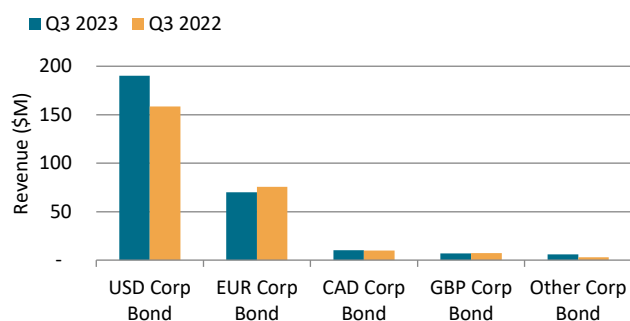
Top Earning Bonds	CUSIP	Denomination	Asset Class	Revenue Generated (\$M)
3M Co (4% 14-Sep-2048)	88579YBD2	USD	I.G. Corp Bond (Fixed Rate)	4.2
Paypal Holdings Inc (5.05% 01-Jun-2052)	70450YAM5	USD	I.G. Corp Bond (Fixed Rate)	3.5
Microchip Technology Inc (0.125% 15-Nov-2024)	595017AU8	USD	N.I.G. Conv Bond (Fixed Rate)	2.5
3M Co (2.875% 15-Oct-2027)	88579YAY7	USD	I.G. Corp Bond (Fixed Rate)	2.4
Mph Acquisition Holdings Llc (5.75% 01-Nov-2028)	553283AC6	USD	Priv. Placement Corp Bond (Fixed Rate)	1.8
Biomarin Pharmaceutical Inc (1.25% 15-May-2027)	09061GAK7	USD	N.I.G. Conv Bond (Fixed Rate)	1.7
Newell Brands Inc (6.625% 15-Sep-2029)	651229BD7	USD	N.I.G. Conv Bond (Fixed Rate)	1.6
Home Depot Inc (4.5% 15-Sep-2032)	437076CS9	USD	I.G. Corp Bond (Fixed Rate)	1.4
Ineos Finance Plc (6.625% 15-May-2028)	G47718AJ3	EUR	N.I.G. Corp Bond (Fixed Rate)	1.3
3M Co (3.05% 15-Apr-2030)	88579YBN0	USD	I.G. Corp Bond (Fixed Rate)	1.2

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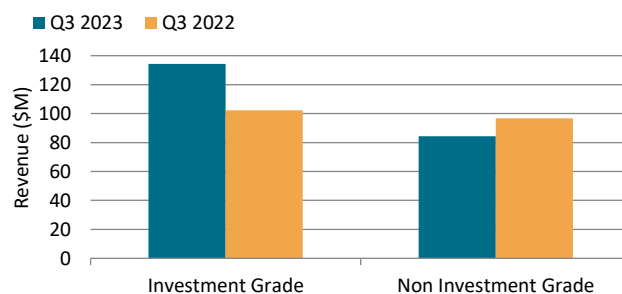


Q3 Revenues by Denomination



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Q3 Revenues by Ratings Category



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Government Bonds

Short-dated bonds remain a popular borrow

The third quarter of the year started with government bonds underperforming riskier assets, as clearer signs of a slowdown in the level of inflation, particularly in the US, started to show in economic data. Investors coalesced around the possibility of a soft landing in the US becoming more likely as a result. During the month of July, the Federal reserve, the Bank of England, and the European central bank all increased rates by 25bps, leaving the door wide open to further increases later on in the year. The Bank of Japan made moves to loosen its grip on bond yields during the month. The shift in policy sent Japan's 10-year yield to the highest level since 2014, triggering big swings in the yen and sparking a debate over whether the country was starting to normalize policy. The Reserve Bank of Australia paused hiking rates for the second time in a row.

August started with the ratings agency Fitch downgrading the US from AAA to AA+ echoing a move made almost a decade ago by S&P Global ratings. This was followed by an announcement by the US treasury that it would be selling an additional \$103B of long-term securities as a result of the delayed borrowing during the debt-ceiling impasse earlier this year, pushing yields higher. The 10-year Treasury hit its highest level since 2008. Whilst there was no Fed rate setting meeting during the month, central bankers met at the annual Jackson Hole conference and conveyed a clear message to the market that further work was needed to bring down inflation. In the UK, the Bank of England continued to increase interest rates to 5.25%.

During September, the European Central Bank continued on its hawkish path, raising interest rates once again for the tenth consecutive time. The increase of 25bps to 4% was considered by investors as the high point for borrowing costs during the current tightening cycle. The Bank of England and the Federal Reserve chose to keep rates on hold as the inflation figure in the UK came in below expectations and the US economy showed signs of falling inflation against a robust economy. September is likely to be seen as the turning point for the current tightening cycle, where the emphasis moves from further increases to duration. Yields on 5-year and 10-year US Treasuries hit their highest levels since 2007, propelled by

Overview



Q3 Revenues

\$464M ▼ **-2%**



Average Balances

\$1.1T ▼ **-10%**



Weighted Average Fee

0.17% ▲ **9%**



Average Lendable

\$4.2T ▲ **8%**



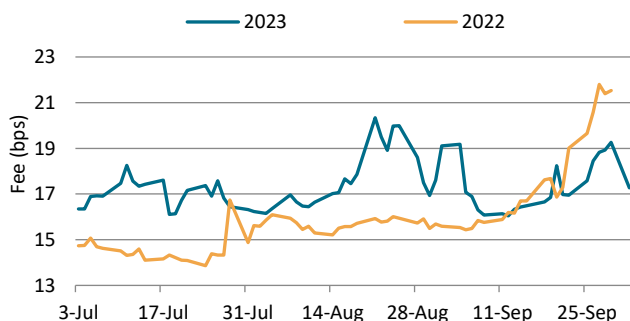
Utilization

20% ▼ **-19%**

rising oil prices, a mantra of higher rates for longer by the Fed and higher-than-expected inflation in Canada.

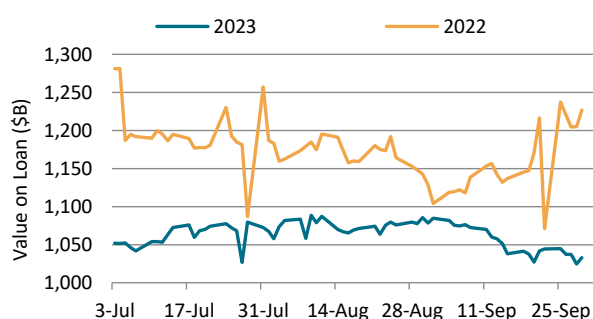
In the securities lending markets, government bond revenues started to decline YoY as revenues fell across European and Asian government bonds. Revenues for US treasuries remained strong throughout the quarter and the asset class posted a 2% increase in revenue as a result of a YoY increase in fees. Balances continued their decline over the quarter and remained significantly under those seen during 2022. Average fees remained steady across Europe, declined across Asia but increased by 16% in the Americas.

Q3 Fee Trend



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Q3 Balance Trend



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Americas government experienced increases in average fees

Revenues posted the first decline of 2023 so far, -2%

Short-dated government bonds remained in demand throughout the quarter

Volume Weighted Average Fee (VWAF) increased by 9% YoY to 17bps

Issuer Region Details

Region	Q3 Revenue (\$M)	Rev YoY % Change	Avg Balances (\$B)	Bal YoY % Change	Avg Fee	Fee YoY % Change	Avg Lendable (\$B)	Lendable YoY % Change	Avg Util	Util YoY % Change
Americas	280	2%	657	-12%	0.17%	16%	2,992	7%	19.12%	-20%
Europe	159	-6%	354	-7%	0.18%	0%	1,080	10%	22.77%	-19%
Asia	25	-10%	51	5%	0.20%	-15%	136	8%	17.04%	2%

Note: Includes only transactions with positive fees
Source: S&P Global Market Intelligence Securities Finance

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Top 10 Revenue Generating Bonds

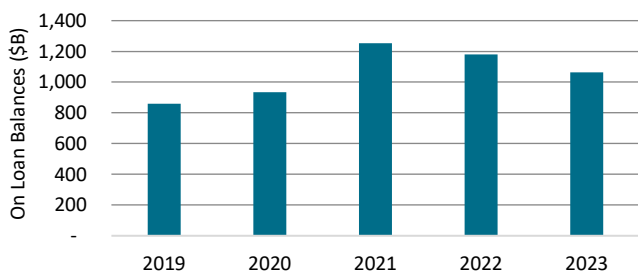
Top Earning Bonds	CUSIP	Denomination	Country	Revenue Generated (\$M)
Germany, Federal Republic Of (Gov) (0% 15-Dec-2023)	DE0001104867	EUR	DE	15.8
United States Treasury (4.125% 31-Jul-2028)	91282CHQ7	USD	US	12.7
United States Treasury (4.375% 15-Aug-2043)	912810TU2	USD	US	5.5
United States Treasury (0.125% 15-Jul-2023)	912828ZY9	USD	US	4.5
United States Treasury (1.875% 15-Feb-2032)	91282CDY4	USD	US	2.8
United States Treasury (3.375% 15-May-2033)	91282CHC8	USD	US	2.7
United States Treasury (2.875% 15-May-2032)	91282CEP2	USD	US	2.6
United States Treasury (4.125% 15-Nov-2032)	91282CFV8	USD	US	2.6
France, Republic Of (Government) (2.75% 25-Oct-2027)	F43750AD4	EUR	FR	2.3
United States Treasury (0% 25-Jan-2024)	912796ZY8	USD	US	2.2

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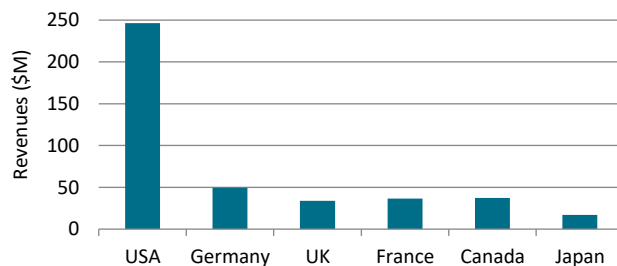


Q3 Balances by year



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Q3 Revenues by issuer



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Author Biography



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Matt Chessum is a director within the securities finance team at S&P Global Market Intelligence. Previously, for over ten years, Matt was an Investment Director at abrtn where his main responsibilities included overseeing the securities lending activity and the management of GBP denominated Money Market mandates. Previous to this, Matt worked at BNP Paribas Securities Services as a securities lending trader.

Matt is a former member of the Bank of England's securities lending committee and a former board member of the International Securities Lending Association (ISLA).

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