IHS Markit®

Securities Finance Quarterly Review

Q2 2018

Welcome to the second Securities Finance Quarterly Review of 2018. At IHS Markit, our mission is to empower clients with data and services to capture the present opportunity set for their businesses, while staying ahead of regulatory hurdles. We view ourselves as the leading independent global information powerhouse, and we continue to leverage the resources of our broader enterprise, as well as our strategic partners in the industry, to best serve our Securities Finance clients.

Progress with our design partners on the SFTR build continues apace, and we look forward to a successful implementation in 2019. While the scale and scope of requirements are tremendous, we have committed the resources to build a comprehensive solution, and appreciate the support from our 32 design partners and clients.

We are also continuing to lead the development of the next generation of benchmarking tools for beneficial owners and their lending agents – in response to demand from the market for more transparent benchmarking reports and standardized data reporting. Over the past year, we have dramatically increased the depth of data available in our benchmarking tool and are excited about further developments to support the evolving needs of the industry.

With industry participation increasing globally, our intraday Securities Finance dataset has reached a critical mass, which is an exciting result from a multi-year process. We have also seen interest pick up for our borrower benchmarking tool and development is underway on a new web interface. We continue to evaluate the best ways to implement adjacent IHS Markit products such as Research Signals, Dividend Forecasting and Exchange Traded Products, to the betterment of our core product.

On a personal note, having recently joined IHS Markit to helm the Securities Finance business – a product I've used myself for a number of years – I'm looking forward to applying the insights I've picked up over my career to drive developments in Securities Finance information and intelligence. I'm delighted to take on this new vantage point, and look forward to collaborating with new and old colleagues alike.

Regards,

Paul R. Wilson

Managing director and global head of Securities Finance product, IHS Markit

We'd love to hear feedback from you with suggestions for future editions or questions on methodology. Please drop us an email at ***MSF-media@markit.com*** *and let us know what you think.*

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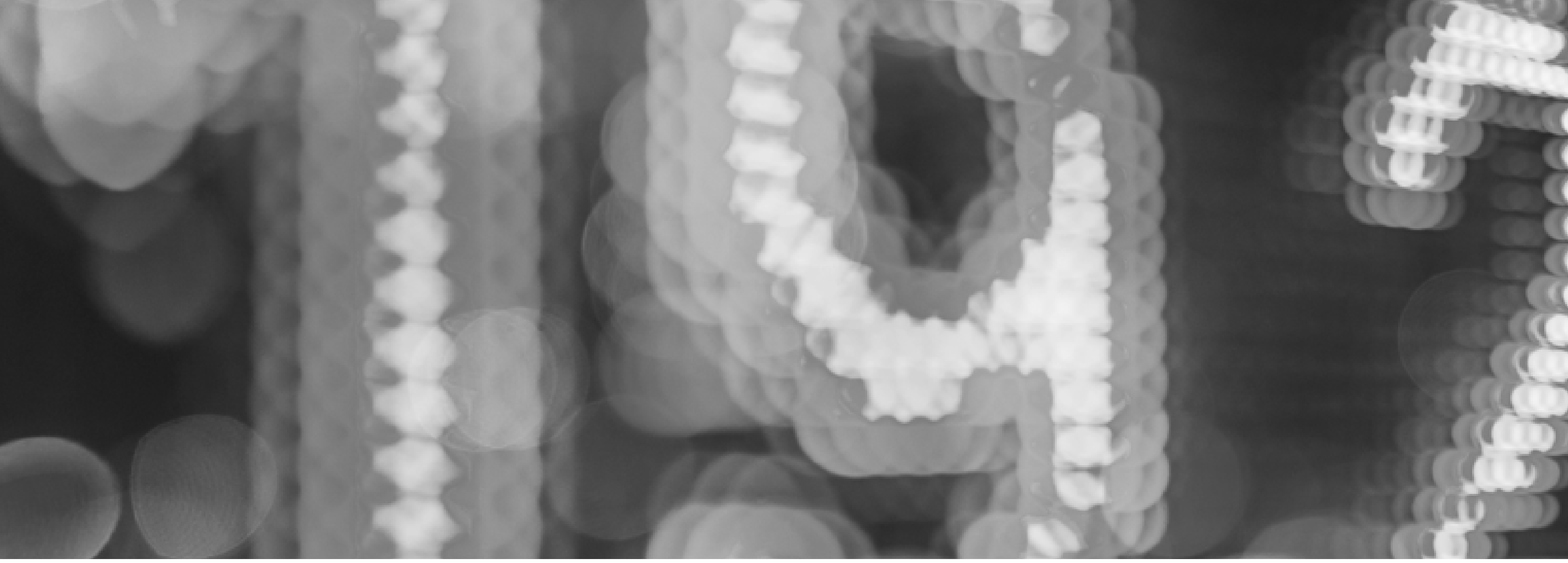
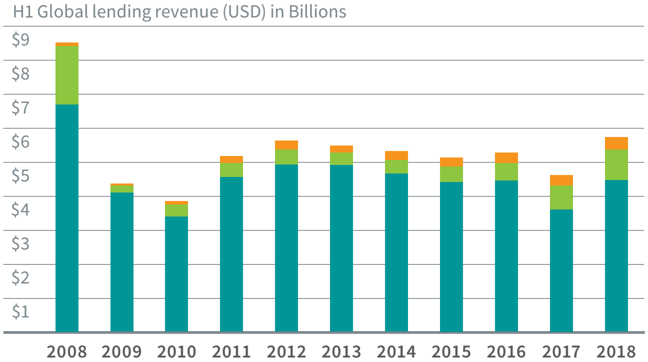


Global Revenue & Specials Trends

Best post-crisis H1 revenues while specials rebound

Global securities lending revenue had the best Q2 since 2015, delivering a total of $3.1bn, besting Q2 2017 by 16%. Adding that to the $2.6bn in Q1 revenues reveals that the first half of 2018 had the highest H1 post-crisis securities lending revenue. For some context, that is still 30% lower than the first half of 2008. The internals of that return have changed significantly however, with government bonds moving from 8% to 18% of lending revenues between Q2 2015 and 2018. Corporate bonds have also taken on an increased significance, moving from 4% to 6% of revenues, and the $184m in Q2 revenue was their best post-crisis quarterly revenue.

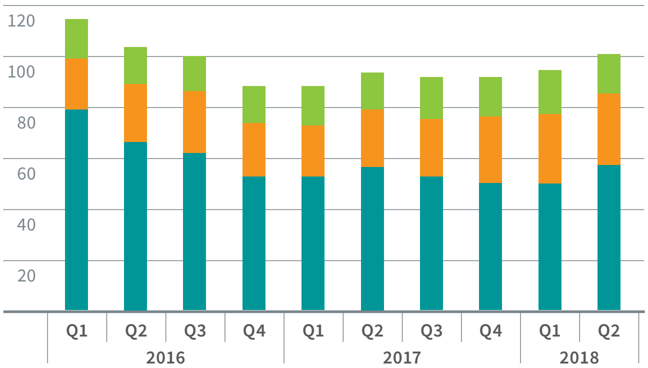
H1 GLOBAL LENDING REVENUE



Demand for government bonds has remained near an all-time high, just above $1t. Commensurate with that, revenues have also increased — with the just over $900m earned in the first half of 2018 being the highest on record and 28% above the first half of 2017.

For equities, the 2nd quarter represented the first YOY increase in Q2 revenues since 2011. As we noted in the last issue, the first quarter set the tone in 2016/17 and that appears to be the case again in 2018, with a strong Q1 leading to an even stronger Q2. Despite the rise of fixed income lending, equities still account for more than 75% of global lending revenue.

EQUITY SPECIALS BALANCES

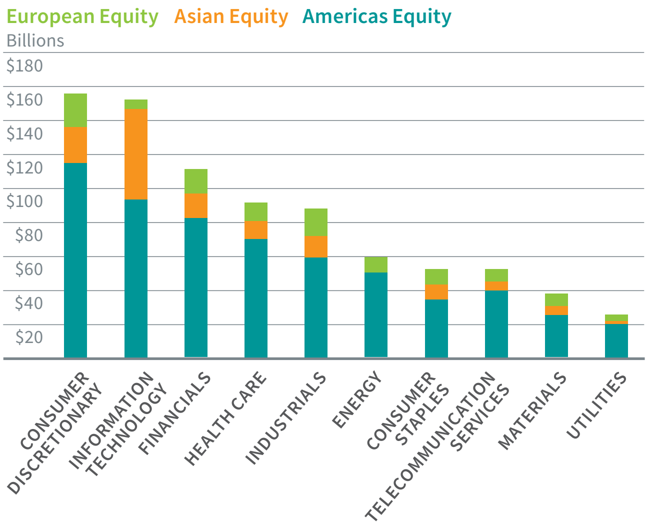


The growth in equity lending revenue has been driven by Asia in recent years, with owners of Japanese equities enjoying Q2 revenue growth over 32% as compared with Q2 2017. The total Asia lending revenue of $546m was the highest level for a single quarter recorded; Combined with Q1 the $1bn in revenues is the highest revenue recorded in the first half of year (going back to 2006). No surprise then that matching the latter half of 2017 would result in 2018 being the best year on record for Asian equities lending revenue.

North American equities also showed solid growth, with the $831m in Q2 revenue being an improvement of 6% as compared with Q2 2017, though it is a small decline

as compared with the first quarter of this year. For the first half of the year NA equities delivered $1.6bn, an encouraging result compared with 2016, but still 10% below the first half of 2016. While the first quarter saw a surge in Canadian equity revenues, on the back of Cannabis related borrows, declining fees in the 2nd quarter depressed revenues, despite revenues remaining elevated.

SECTOR BALANCES BY REGION

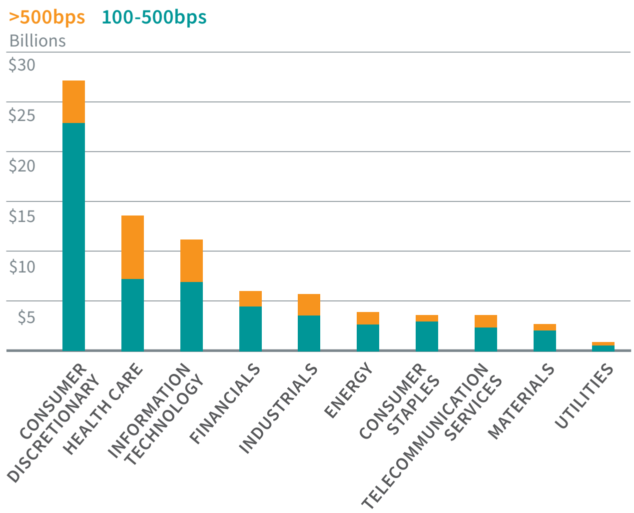


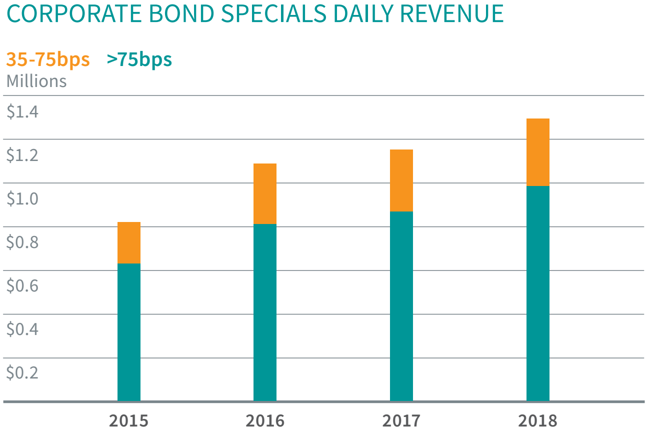
It was a similar story for European equities, which delivered $929m in Q2, a 21% improvement over Q2 2017, though this is still well below the greater than $1bn in Q2 revenues for 2016.With that said it's encouraging to see the H1 European equity revenue best the prior year comparison for the first time since 2013.

Part of the story has been the demand for specials, which has been trending back up since Q1 of 2017. US special balances have bounced back in part the result of the Tesla borrow balance reaching an all-time high in Q2, just over $12bn. The percentage of global equity loan balances with a fee above 100bps averaged 6.8% in Q2, down from 7.2% in Q1, though that is more the result of GC balances growing faster than specials. With equity revenues trending back toward the level seen in in the first half of 2016, while special balances are still below where they were at the time, there could be further upside ahead for equity lending revenue in the 2nd half of the year.

Consumer Discretionary is the most borrowed sector globally, bolstered by $12bn in TSLA balance, however it would be the most borrowed sector even excluding that. Similarly, the outsized Asia balances in Information Technology are largely the result of Alibaba, however even after excluding the just over $30bn in BABA balances IT remains the 2nd most borrowed sector.

SPECIAL SECTOR BALANCES

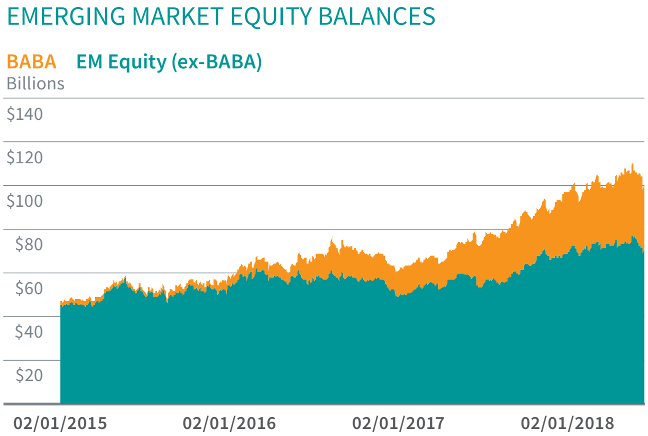




Zooming in sector specials, the Healthcare sector is revealed to have the largest percentage of special balances, with 7% of all balances on loan for greater than 500bps fee. Following that is Information Technology, where 2.7% of balances are against loans with fees greater than 500bps, though Consumer Discretionary is a very close 2nd. IT does not include the BABA balances, which remain easy to borrow despite being the most borrowed equity globally.

Borrow demand for corporate bonds has increased 32% since the start of 2017 and has bumped up against the $200bn peak in demand at the outset of Q2 and again in early June. Notably, the balances and revenues associated with specials, defined as fees above 75bps, have also been trending up. The elevated borrow demand comes from a number of sources, however rising interest rates and related re-financing needs have created trading opportunities which have contributed revenue to beneficial owners amidst the volatility in the first half of the year.

As noted above Alibaba is the most borrowed equity globally, however that's only part of the story in emerging market equity demand, which reached a post-crisis peak in June. Including BABA, EM balances are now over 11% of global equity balances, up from 8.8% at the start of 2017. Loan balances in Hong Kong, South Korea and Taiwan also peaked in early June, adding to the upswing in revenues in the region. While Asia EM rightly attracts most of the attention, it's worth noting that South Africa and LatAm are also seeing increasing demand and revenues. If the current trends persist EM equities will generate over $1bn in 2018 revenue.



As we noted in the previous edition of this review, there are strong tailwinds at the back of the industry, with equity GC and specials demand robust, corporate bond borrow demand spiking toward post-crisis highs and demand for HQLA continuing its rapacious increase. The market volatility in first half of the year has only enhanced these trends and borrow demand for Emerging Market equities and government bonds is poised to drive further revenue increases in the 2nd half of 2018. With trade wars dominating the news cycle, and inflation concerns being expressed on earnings calls, increasing lending revenue has helped offset the market volatility in the first half of the year.

Asia Equity

Uptrend extends

Equity lending revenues for Asian equities continued to increase in the 2nd quarter of 2018, up 36% from the comparable quarter of 2017. The increasing revenues were primarily driven by growing loan balances, though average fees did post a modest gain. The good news for beneficial owners is that utilization also increased. The upswing in revenues again spanned the region, with only New Zealand and Malaysia failing to better the performance from Q2 2017.

The largest contribution to the revenue upswing in nominal terms was Japan, which pulled in more than $214 million during Q2, a 32% increase compared with Q2 2017. Sharp Corp was the highest revenue generating stock in Japan, with just over 9% of all revenue in the country. Cyberdyne was the 2nd most revenue generating Japanese equity, though the trend of declining fees lowered the daily revenue by 13% during Q2. Some consolation for beneficial owners of Cyberdyne can be found in the borrow fee downtrend flattening out, while borrow demand continues to increase, suggesting revenues may pick back up. In 2017, Japan moved ahead of Canada to become the third highest revenue generating equity lending market, a title it defended in the first half of 2018.

The 2nd largest market in Asia was South Korea, whose lending revenue increased to $126m in Q2, compared with $80m in Q2 2017. One key driver of the uptick was Celltrion. with $33.8m in Q1 revenue making it the most revenue generating Asian equity. On top of that, Celltrion Healthcare delivered more than $9m of Q2 revenues.

Overview

Quarterly Revenues
$547M ▲ 36%

Average Balances
$176B ▲ 32%

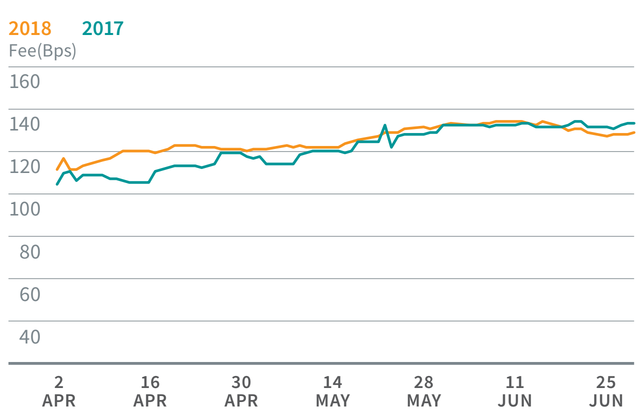
Weighted Average Fee
1.40% ▲ 3%

Average Inventory
$1.9T ▲ 34%

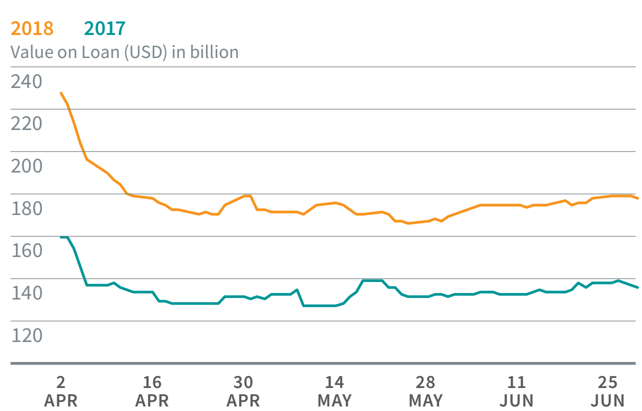
Utilisation
5.51% ▲ 13%

While Q1 revenues for South Korea and Hong Kong were roughly similar (just below $100m) SK took a decisive advantage in Q2, while HK revenues were similar to Q1. With that said, Hong Kong Q2 equity lending revenue did manage to best its 2017 comparable by 22%. The increase was entirely the result of increasing balances, with average fees declining. The largest contributors to Q2 revenues in Hong Kong were Semiconductor Manufacturing International Corp. and BYD Co Ltd., which combined for 15% of the total.

Q2 FEE TREND



Q2 BALANCE TREND



OVERVIEW

- Japan continues to lead revenue gains
- Hong Kong equity demand at post-crisis peak
- Celltrion retakes top revenue position
- Yageo Corp delivers over 10% of Taiwan revenues

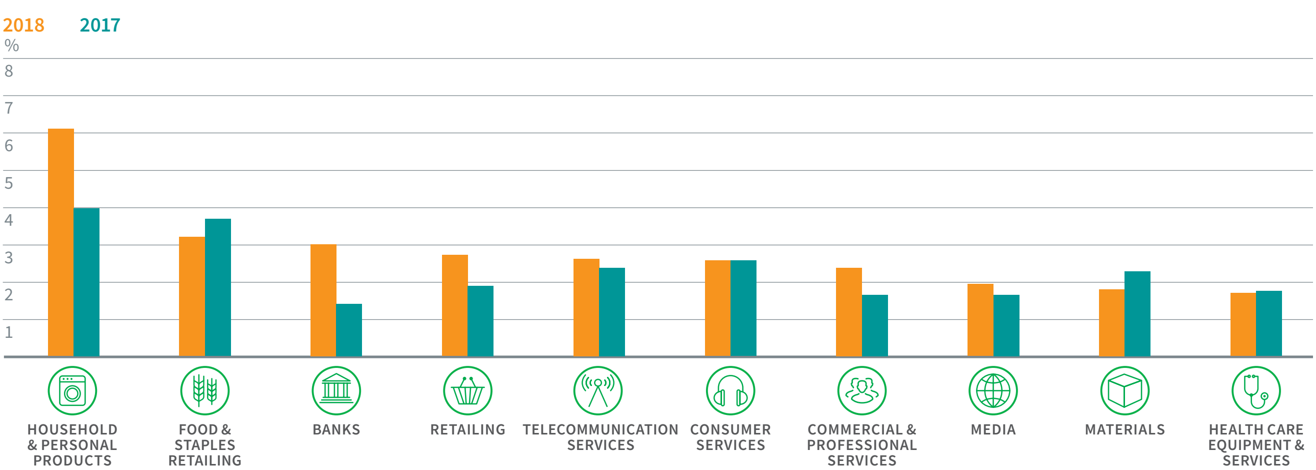
COUNTRY DETAILS

Country	Quarterly Securities Lending Income (USD M)	YoY Change	Average Value on Loan (USD Bn)	YoY Change	Weighted Fees	YoY Change	Average Lendable (USD Bn)	YoY Change	Average Utilisation	YoY Change
Japan	214.21	32.4%	96.18	47.4%	1.00%	-10%	859.71	35.2%	5.64	31.9%
South Korea	126.82	60.9%	14.10	7.6%	4.06%	49%	135.02	24.4%	5.51	13.4%
Hong Kong	94.93	22.7%	31.46	36.1%	1.36%	-10%	412.25	44.0%	5.49	-1.0%
Taiwan	57.01	27.7%	9.22	-1.8%	2.79%	30%	59.29	23.1%	7.95	0.8%
Australia	34.49	50.3%	20.43	18.5%	0.76%	26%	284.88	30.3%	5.33	3.9%
Singapore	7.31	7.7%	2.21	-28.0%	1.49%	49%	55.56	21.8%	3.07	-35.6%
Malaysia	6.71	-1.6%	0.79	-4.4%	3.85%	3%	15.20	40.5%	4.73	-33.1%
Thailand	4.33	77.4%	0.98	33.4%	1.98%	33%	16.53	29.1%	4.11	11.1%
New Zealand	0.90	-5.5%	0.64	59.5%	0.64%	-40%	6.67	16.1%	6.28	20.1%

TOP 10 REVENUE GENERATING STOCKS

Instrument Name	Ticker	Sector	Country	Revenue Generated ($)
Celltrion Inc	068270	Pharmaceuticals, Biotechnology & Life Sciences	KR Equity	33.8
Sharp Corp	6753	Consumer Durables & Apparel	JP Equity	19.8
Celltrion Healthcare Co Ltd	091990	Health Care Equipment & Services	KR Equity	9.5
Cyberdyne Inc	7779	Health Care Equipment & Services	JP Equity	7.9
Semiconductor Manufacturing International Corp	981	Semiconductors & Semiconductor Equipment	HK Equity	7.3
Byd Co Ltd	1211	Automobiles & Components	HK Equity	6.7
Yageo Corp	2327	Technology Hardware & Equipment	TW Equity	6.0
Yahoo Japan Corp	4689	Software & Services	JP Equity	5.0
Sillajen Inc	215600	Pharmaceuticals, Biotechnology & Life Sciences	KR Equity	4.8
Galaxy Resources Ltd	GXY	Materials	AU Equity	4.5

AVERAGE % OF SHARES ON LOAN



EMEA Equities

Revenue growth back on track

European equity lending revenue was just over $1.3bn in the first half of 2018. That was an improvement of 19% compared with the first half of 2017. After outperforming in Q1, EU equity lending revenues managed a 21% improvement for Q2 relative to 2017. Germany led the way, improving on both balances and fees to deliver $124m in Q2 revenue. Revenues for French equities also improved in Q2, relative to 2017, after lagging in Q1. Revenues in the Nordic countries were up 9%, primarily driven by improvement in Finland, while Sweden posted the only declining revenue in the top five markets.

The increasing revenue is primarily the result of increasing loan balances, which registered a Q2 average just below $300bn across the region. The largest contributors to the increase were UK, France, Germany and the Netherlands. Brexit uncertainty along with pressure in the retail sector boosted demand for UK equities by 24% compared with Q2 2017. Some good news for beneficial owners is that the increase in their loan balances outpaced the 18% increase in lendable inventory, causing EU equity utilization to increase for the 2nd consecutive quarter. The increasing borrow demand pushed the average balances for the first half of 2018 above $250bn, the highest level for the first six months of a year since 2011.

While increasing balances drove the majority of improved revenue, and in fact overall average fees fell slightly for EU equities, there were some notable exceptions. Average fees improved by 35% in Germany and 12% in the Netherlands. Even more impressively, the average lending fee for equities in Greece doubled, to a 10% average annualized fee.

Overview

Quarterly Revenues
$929M ▲ 21%

Average Balances
$299B ▲ 23%

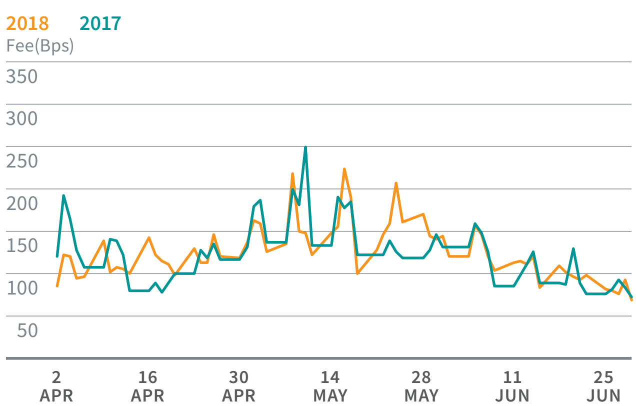
Weighted Average Fee
1.41% ▼ 2%

Average Inventory
$2.18T ▲ 12%

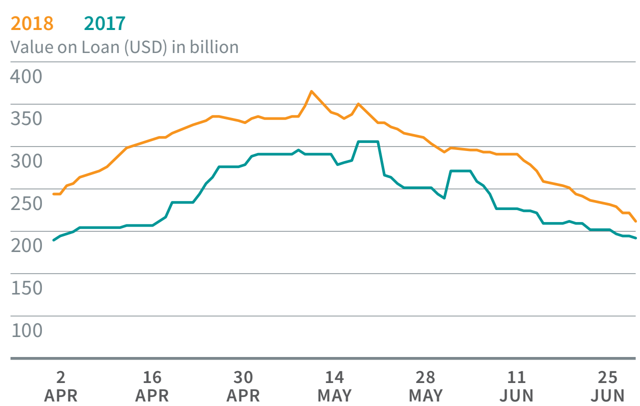
Utilisation
7.4% ▲ 8%

If EU equity lending revenues only match 2017 in the 2nd half of 2018, the overall revenue for the year will only be 7% below 2016, a remarkable comeback after some challenging times at the end of 2016 and early 2017. With increasing borrow balances outstripping lendable supply growth, and the potential for global macro pressures to drive increased hedging activity, the last half of 2018 could make this a very strong year indeed for European equity lending revenues.

Q2 FEE TREND



Q2 BALANCE TREND



OVERVIEW

Borrow demand in all but two countries	Lendable value continues march higher	H&M leads Nordic equities	ASML leads demand for EU semiconductors

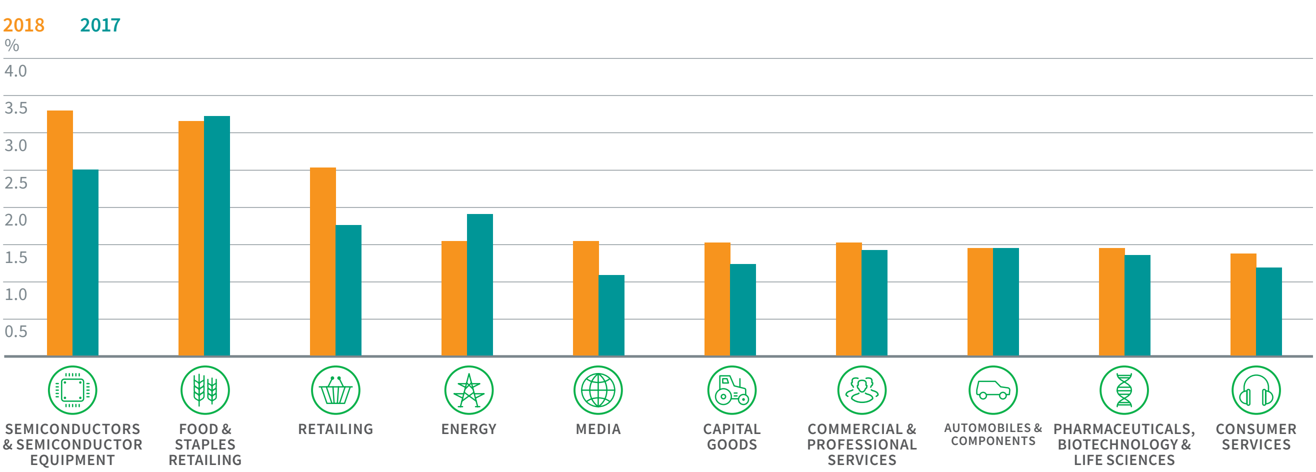
COUNTRY DETAILS

Country	Quarterly Securities Lending Income (USD M)	YoY Change	Average Value on Loan (USD Bn)	YoY Change	Weighted Fees	YoY Change	Average Lendable (USD Bn)	YoY Change	Average Utilisation	YoY Change
France	337.72	18.1%	77.83	13.4%	1.97%	4%	405.90	24.0%	12.08	-3.7%
Germany	123.58	64.0%	36.93	24.9%	1.51%	31%	343.12	6.1%	6.53	14.3%
Sweden	85.19	-7.7%	20.65	22.9%	1.84%	-23%	117.51	12.1%	11.09	9.1%
UK	58.28	17.8%	50.30	23.9%	0.52%	-4%	798.48	23.7%	4.82	7.7%
Italy	56.54	21.9%	18.30	44.5%	1.40%	-16%	114.99	34.1%	9.78	13.7%
Finland	51.81	52.8%	7.68	44.6%	3.04%	8%	45.84	42.5%	10.25	0.5%
Norway	44.49	11.1%	7.57	21.6%	2.67%	-8%	38.36	59.3%	12.83	-20.7%
Switzerland	44.05	28.9%	25.83	17.7%	0.77%	9%	309.58	2.9%	5.72	13.5%
Belgium	34.55	-6.8%	8.65	24.2%	1.82%	-24%	67.24	7.6%	8.70	25.4%
Netherlands	34.36	82.0%	18.11	49.7%	0.86%	20%	147.31	28.6%	8.24	21.6%
Spain	29.20	8.5%	14.05	36.9%	0.94%	-21%	113.45	12.0%	7.65	23.9%
Turkey	7.40	5.1%	0.80	-23.3%	4.18%	36%	9.87	6.8%	6.11	-28.3%
Denmark	7.25	22.2%	7.21	27.0%	0.45%	-3%	66.89	14.0%	6.87	8.4%
Austria	3.49	24.4%	1.47	4.5%	1.07%	18%	15.95	38.7%	6.10	-19.6%
Portugal	3.46	8.3%	0.92	25.7%	1.72%	-14%	8.43	23.8%	6.85	0.5%
Greece	2.67	957.0%	0.11	457.5%	11.12%	86%	2.26	35.1%	3.97	580.5%
Poland	2.03	-62.6%	0.85	-46.6%	1.07%	-30%	11.42	13.8%	5.48	-54.1%
South Africa Equity	14.71	53.4%	5.98	7.4%	1.07%	38%	64.87	25.9%	4.21	-15.5%

TOP 10 REVENUE GENERATING STOCKS

Instrument Name	Ticker	Sector	Country	Revenue Generated ($)
Kering Sa	KER	Consumer Durables & Apparel	FR Equity	56.6
Axa Sa	CS	Insurance	FR Equity	23.1
Sanofi Sa	SAN	Pharmaceuticals, Biotechnology & Life Sciences	FR Equity	21.1
Total Sa	FP	Energy	FR Equity	20.4
Renault Sa	RNO	Automobiles & Components	FR Equity	11.5
K&S Ag	SDF	Materials	DE Equity	11.3
Daimler Ag	DAI	Automobiles & Components	DE Equity	11.1
Orange Sa	ORA	Telecommunication Services	FR Equity	9.2
H & M Hennes & Mauritz Ab	HM B	Retailing	SE Equity	9.0
Compagnie De Saint Gobain Sa	SGO	Capital Goods	FR Equity	7.5

AVERAGE % OF SHARES ON LOAN



Americas Equities

Revenue uptrend slowing down

North American equities posted an 8% improvement compared with Q2 2017. While the longer run uptrend remains in place, the $831m in Q2 revenues was 2.4% below Q1. US equities returned $720m, up $10m compared to Q1, entirely on the back of increasing balances, while fees fell slightly. The increasing loan balances were insufficient to soak up the increasing lendable supply, causing utilization to fall as compared with Q2 2017. A bright spot for lenders of US equities is that utilization did improve by 0.34 points as compared with Q1.

Tesla's April 10th proxy record date saw a spike in borrow fees, as investors demanded an additional return to forego their voting rights, with the overall and one-day average fees hitting a 52-week high that day. While fees trended down for the remainder of the quarter after the proxy, increasing loan balances supported revenues and made TSLA the most revenue grossing equity globally in Q2.

While Ubiquiti Networks was the 2nd most revenue generating stock in Q2, a combination of declining balances and fees during the quarter suggests a repeat in Q3 is unlikely. Heading in the opposite direction is Cracker Barrel, a newcomer to the top 10 securities, which saw fees and utilization peak at the end of the quarter (on a greater than $700m balance) suggesting lending revenues may continue to increase.

Canadian equity lending revenue was $108m, down 4% compared with Q2 2017. While the Cannabis space continues to see special borrow rates and elevated balances – nearly $2bn in total – declining fees have weighed on revenue as compared with Q1. Declining fees are partly driven by share issuance, which has taken the pressure off of some of the most shorted stocks, including Aurora Cannabis Inc.

ADRs have continued to deliver, with Q2 revenues of $75.3m, up 12% compared to Q2 2017. While the over $30bn average balance from Alibaba was half of the total, it's worth noting that ex-BABA ADR balances reached a post-crisis peak in early June. After BABA's $13m Q2 revenue, the next most revenue generating was Qudian, which achieved just over $5m on an average balance of $144m.

Overview

Quarterly Revenues
$832M ▲ 6%

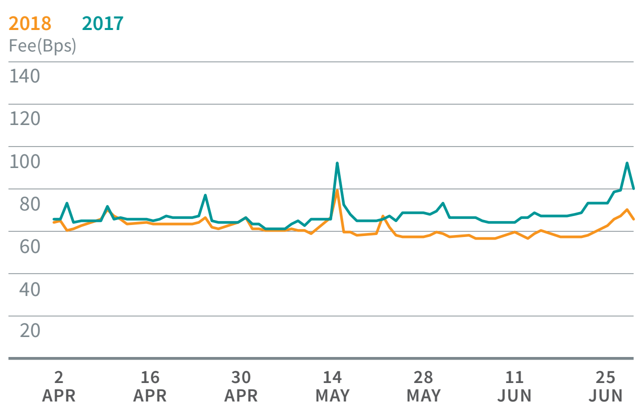
Average Balances
$516B ▲ 17%

Weighted Average Fee
0.73% ▼ 9%

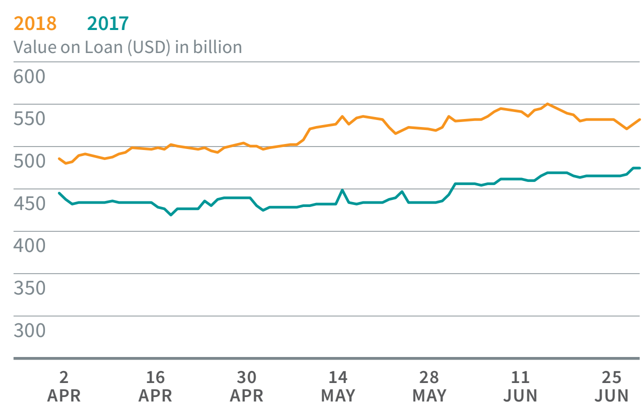
Average Inventory
$9.1T ▲ 25%

Utilisation
4.54% ▼ 3%

Q2 FEE TREND



Q2 BALANCE TREND



OVERVIEW

US revenues up on increased demand

Mexico up across the board

Tesla top revenue generating security for Q2

Cannabis stocks lead Canada revenue

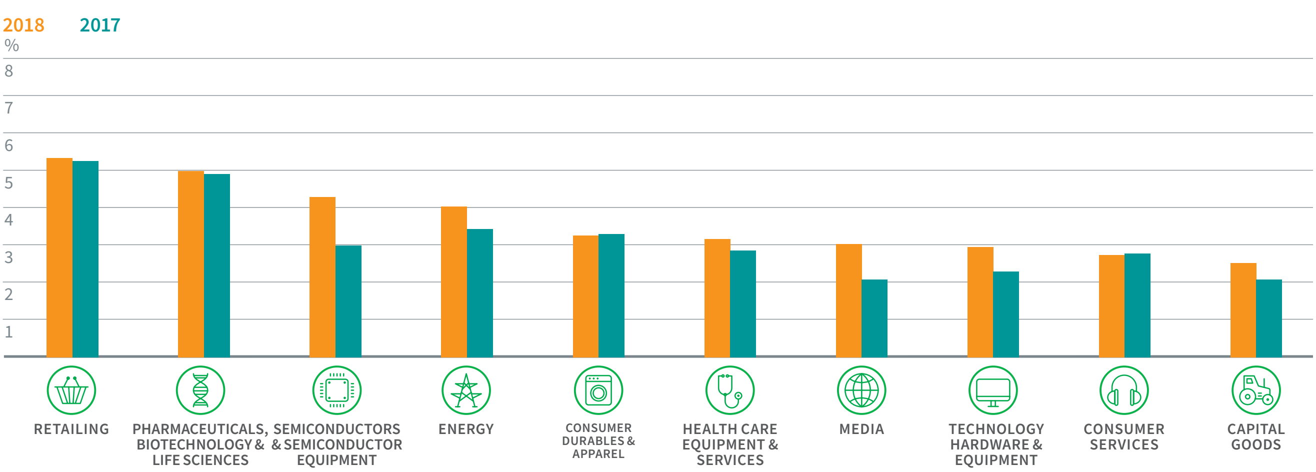
COUNTRY DETAILS

Country	Quarterly Securities Lending Income (USD M)	YoY Change	Average Value on Loan (USD Bn)	YoY Change	Weighted Fees	YoY Change	Average Lendable (USD Bn)	YoY Change	Average Utilisation	YoY Change
USA	720.25	8.4%	472.22	18.4%	0.69%	-8%	8,533.55	25.5%	4.39	-1.8%
Canada	108.50	-4.7%	42.23	-0.7%	1.15%	-3%	514.09	13.3%	7.01	-10.2%
Mexico	1.72	41.0%	1.06	30.6%	0.73%	8%	28.36	11.5%	2.95	11.6%
Brazil	1.40	-58.4%	0.45	-22.4%	1.40%	-55%	2.61	2.9%	5.22	-51.6%
ADRs	75.34	12.4%	60.15	53.0%	0.56%	-27%	228.58	31.7%	19.63	14.0%

TOP 10 REVENUE GENERATING STOCKS

Instrument Name	Ticker	Sector	Country	Revenue Generated ($)
Tesla Inc	TSLA	Automobiles & Components	US Equity	76
Ubiquiti Networks Inc	UBNT	Technology Hardware & Equipment	US Equity	34
Applied Optoelectronics Inc	AAOI	Technology Hardware & Equipment	US Equity	27
Sirius Xm Holdings Inc	SIRI	Media	US Equity	20
Sunpower Corp	SPWR	Semiconductors & Semiconductor Equipment	US Equity	13
Mimedx Group Inc	MDXG	Pharmaceuticals, Biotechnology & Life Sciences	US Equity	13
Canopy Growth Corp	WEED	Pharmaceuticals, Biotechnology & Life Sciences	CA Equity	12
Cracker Barrel Old Country Store Inc	CBRL	Consumer Services	US Equity	9
Visa Inc	V	Software & Services	US Equity	9
Aurora Cannabis Inc	ACB	Pharmaceuticals, Biotechnology & Life Sciences	CA Equity	8

AVERAGE % OF SHARES ON LOAN



Exchange Traded Funds

Corporate bond funds lead growth

ETF lending revenue remains robust, with the $97m in Q2 revenue representing an improvement of 9% compared to Q2 2017. Three of the top four revenue generating ETFs track high-yield corporate bond indices, as the demand for short exposure to the asset class via exchange traded vehicles remains elevated. Those three funds (HYG, JNK & IHYG) contributed 26% of ETF lending revenue in Q2, up from 20% in Q1. The iShares iBoxx High Yield ETF (HYG) delivered the most revenue in Q2 ($16m), which represents more than 15% of all ETF lending revenue in Q2. The combined borrow balances for high-yield ETFs is equivalent to 15% of the borrow balances in the USD non-investment grade corporate bonds – more on that in the next section.

The growth in ETF adoption, with global AUM passing $5T, has pushed lendable inventory to $282 billion, an increase of 30% compared with Q2 2017. Borrow demand has failed to keep pace which resulted in a utilization decline of 10% over the same period. ETFs listed in Europe have seen an increase in utilization – however, 88% of ETF loan balances are in funds listed in the US.

The pace of ETF inflows may be slowing down, with equity ETFs posting the smallest inflow out since Q2 2016 and fixed income ETFs posting the smallest inflow since Q4 2016. As noted in the introduction, EM ETFs saw the first quarterly outflow since Q3 2015, coinciding with the iShares MSCI Emerging Markets fund moving into the top 10 revenue generating ETFs.

Overview

Quarterly Revenues
$97M ▲ 9%

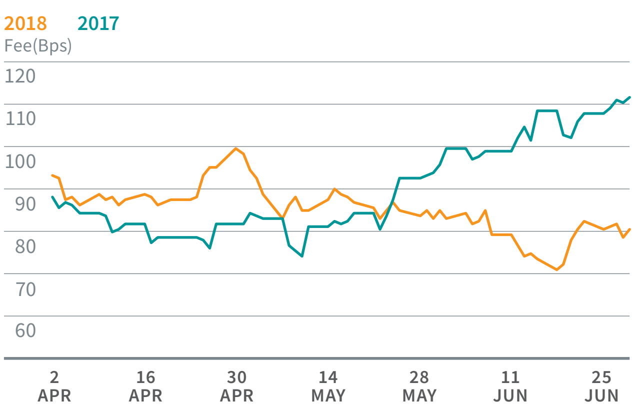
Average Balances
$46B ▲ 15%

Weighted Average Fee
0.96% ▼ 5%

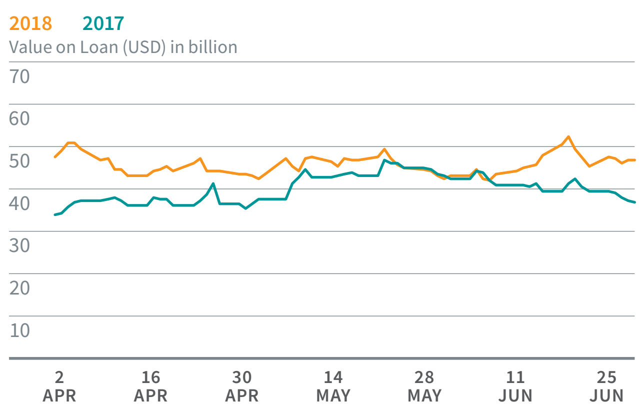
Average Inventory
$282B ▲ 30%

Utilisation
9.61% ▼ 10%

Q2 FEE TREND



Q2 BALANCE TREND



OVERVIEW

Americas ETF revenue up on increased demand	EU ETF utilization increases	Increase in lendable balances unaffected by market stress	Corporate bond funds drive revenues

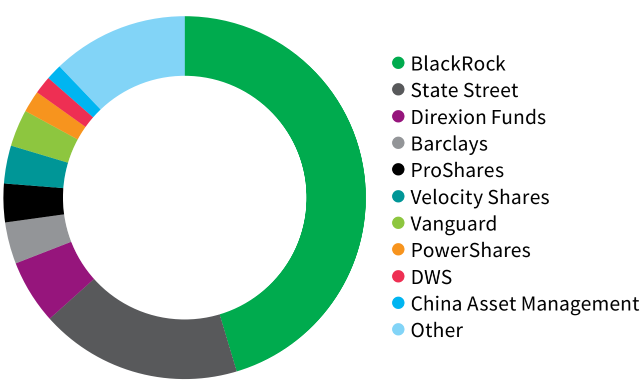
COUNTRY DETAILS

Country	Quarterly Securities Lending Income (USD M)	YoY Change	Average Value on Loan (USD Bn)	YoY Change	Weighted Fees	YoY Change	Average Lendable (USD Bn)	YoY Change	Average Utilisation	YoY Change
America	71.88	11.7%	39.39	12.5%	0.82%	-1%	173.09	27.6%	6.97	-12.2%
Asia	3.55	-13.2%	0.90	41.6%	1.78%	-38%	2.23	90.2%	10.31	-18.6%
Europe	19.02	-0.4%	4.65	21.6%	1.84%	-18%	52.49	37.0%	12.26	38.6%

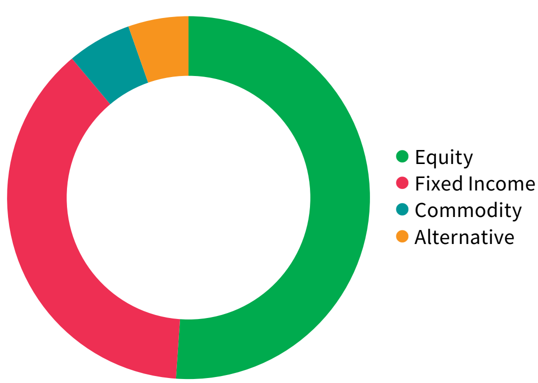
TOP 10 REVENUE GENERATING FUNDS

Instrument Name	Ticker	Listing Country	Asset Class	Q3 Revenue Generated ($)
Ishares Iboxx $ High Yield Corporate Bond Fund	HYG	**USA**	US Equity	16.9
Spdr Bloomberg Barclays High Yield Bond Etf	JNK	**USA**	US Equity	7.2
Ishares Russell 2000 Etf	IWM	**USA**	US Equity	1.7
Ishares High Yield Corp Bond Ucits Etf Eur(Dist)	IHYG	**Ireland**	IE Equity	1.4
Spdr S&P Biotech Etf	XBI	**USA**	US Equity	1.4
Spdr S&P 500 Etf Trust	SPY	**USA**	US Equity	1.3
Ishares Core Ftse 100 Ucits Etf (Dist)	ISF	**Ireland**	IE Equity	1.1
Utilities Select Sector Spdr Fund	XLU	**USA**	US Equity	0.7
Ishares Msci Emerging Markets Etf	EEM	**USA**	US Equity	0.6
Xtrackers Hvst Csi 300 China A-Shs Etf	ASHR	**USA**	US Equity	0.5

LENDING REVENUES BY ISSUER



LENDING REVENUES BY ASSET CLASS



Corporate Bonds

Demand for Corp Bonds remains elevated

The borrow demand for corporate bonds has continued to expand and once again Q2 2018 represents an increase in all key metrics when compared to Q2 2017. The 2nd quarter also narrowly bested the preceding quarter to take the title of highest quarterly revenue since at least 2006. Tesla is once again the only firm to appear on the top 10 revenue generating equity and bond tables, and the 2025 maturity issue moved from 10th to 2nd in the table this quarter.

Global corporate bond balances passed $200 billion globally at the end of Q1 and moved down slightly during Q2, though that was partly driven by the sell-off across the asset class. The current uptrend in corporate bond demand started just after the US presidential election in the fall of 2016. Corporate bond lending revenue increased during each quarter of 2017, and Q2 2018 was the 4th consecutive quarter to see revenue, loan balances, fees, inventory and utilization all increase as compared with the comparable quarter the year prior.

Investment grade bonds make up 67% of loan balances, with IG demand increasing by 17% compared with Q2 2017. In comparison, non-investment grade bonds saw a 10% YOY increase in demand, while higher fees allowed NIG bonds to capture 63% of the revenue. Fees are also growing at a more rapid pace for NIG bonds, which drove a 29% increase in revenue, compared with 14% for IG bonds. GBP denominated IG bonds saw the largest percentage increase in demand for investment grade bonds (46%), while EUR denominated NIG bonds had the largest increase in non-investment grade bonds.

Compared with Q1, borrow demand for the convertible bonds declined, delivering $14.5m in Q2 revenue, which represented a 25% decrease QOQ. The 2nd quarter was slightly better than Q2 of 2017, so the general upswing in revenues remains in place.

Overview

Quarterly Revenues
$187M ▲ 17%

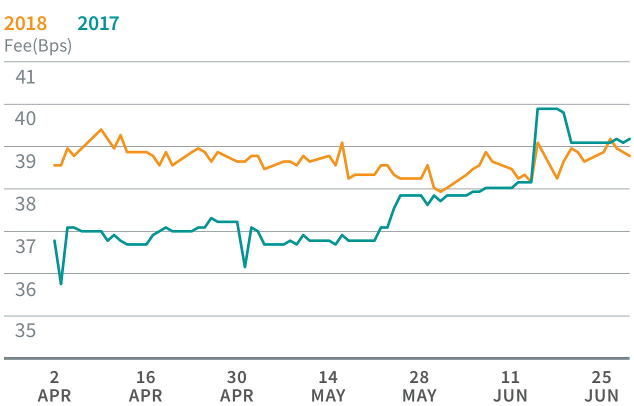
Average Balances
$195B ▲ 14%

Weighted Average Fee
0.43% ▲ 3%

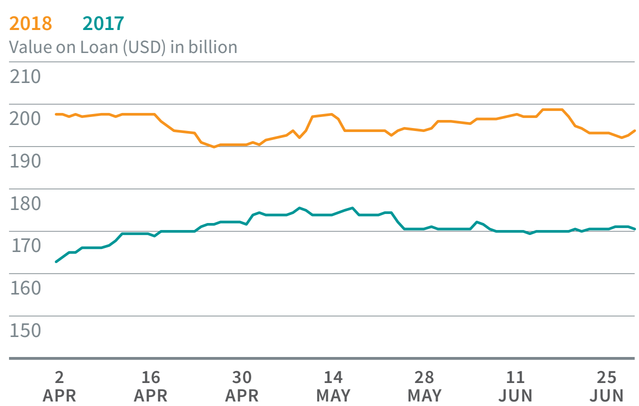
Average Inventory
$3.2T ▲ 7%

Utilisation
5.44% ▲ 8%

Q2 FEE TREND



Q2 BALANCE TREND



OVERVIEW

Corporate bond demand continues to increase	Utilization up despite increasing lendable value	Tesla in top 10 most revenue generating bonds and equities	Revenues up 29% for non-investment grade bonds

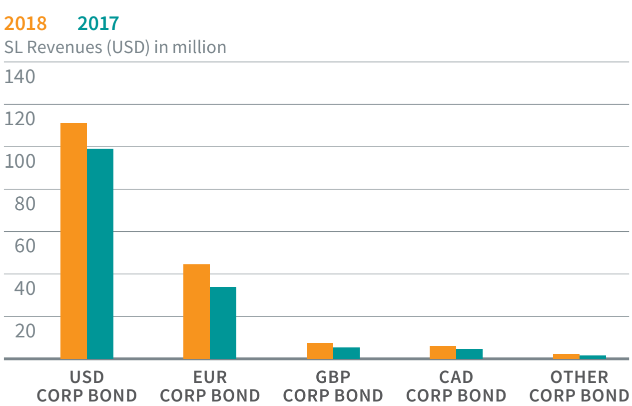
ISSUE TYPE DETAILS

Issue Type	Quarterly Securities Lending Income (USD M)	YoY Change	Average Value on Loan (USD Bn)	YoY Change	Weighted Fees	YoY Change	Average Lendable (USD Bn)	YoY Change	Average Utilisation	YoY Change
Asset Backed Securities	0.56	403.9%	0.87	260.4%	0.29%	41%	226.56	4.4%	0.17	61.1%
Conventional Bonds	171.93	18.5%	187.89	14.4%	0.41%	3%	2,927.91	6.7%	5.78	8.2%
Convertible Bonds	14.53	3.9%	6.22	-2.2%	1.05%	6%	44.72	7.4%	10.09	-2.1%

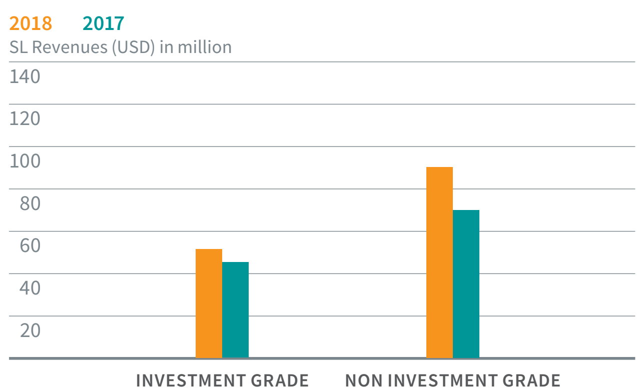
TOP 10 REVENUE GENERATING BONDS

Instrument Name	ISIN	Listing Currency	Rating	Revenue Generated ($)
Booking Holdings Inc (0.9% 15-Sep-2021)	BKNG	USD	N.I.G. Convert	2.9
Tesla Inc (5.3% 15-Aug-2025)	TSLA	USD	Priv. Placement	1.9
Astaldi Spa (7.125% 01-Dec-2020)	ASTX	EUR	N.I.G. Corp Bond	1.6
Noble Holding International Ltd (7.75% 15-Jan-2024)	NE	USD	N.I.G. Corp Bond	1.5
Chs/Community Health Systems Inc (6.875% 01-Feb-2022)	CYH	USD	N.I.G. Corp Bond	1.5
Tenet Healthcare Corp (6.75% 15-Jun-2023)	THC	USD	N.I.G. Corp Bond	1.4
Altice Luxembourg Sa (7.625% 15-Feb-2025)	ATCA	USD	Priv. Placement	1.3
Centurylink Inc (7.5% 01-Apr-2024)	CTL	USD	N.I.G. Corp Bond	1.2
Technipfmc Plc (0.875% 25-Jan-2021)	FTI	EUR	I.G. Conv Bond	1.1
American Axle & Manufacturing Inc (6.25% 01-Apr-2025)	AXL	USD	N.I.G. Corp Bond	1.0

Q2 SECURITIES LENDING REVENUES BY DENOMINATION



Q2 SECURITIES LENDING REVENUES BY RATINGS CATEGORY



Government bonds

Still great, though slightly less so than in Q1

While Q1 was the best post-crisis quarter for government bond lending revenue ($460m) Q2 was not far behind with $426m. The revenue growth came entirely from North America and EU issuers, with Asia seeing nearly a 10% decline in revenues. The increasing demand for high quality liquid assets continues, with NA, EU and Asia issuers all seeing greater than 15% demand growth compared with Q2 2017. Aside from HQLA demand, increasing short term interest rates and flattening yield curves have also created further trading opportunities. There have also been some directional trading opportunities, with bond shorts placing bets on Italian bonds amidst the election uncertainty.

US government bonds posted the largest nominal increase in revenues, up $61m for a total of $227m, an increase of 37%. UK issues saw the 2nd largest nominal increase in revenues in Q2, increasing a whopping 42% to $40m. Bonds issued by France make a splash in top 10 revenue generating government bonds, and overall French issues increased lending revenue by 21% to $41m, narrowly hanging onto 2nd most revenue generating issuer status. Notably, there was an 18% decline in revenues for Germany government bonds.

Overview

Quarterly Revenues
$426M ▲ 23%

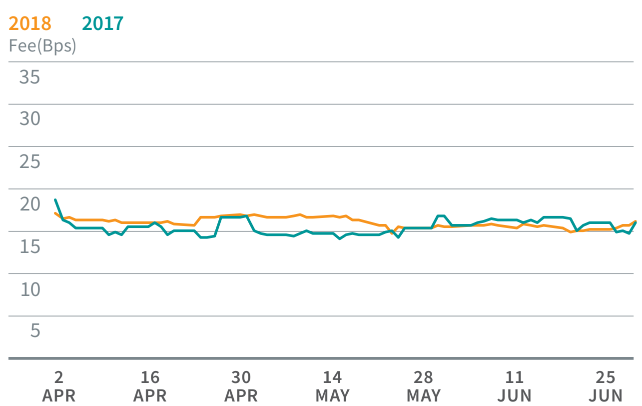
Average Balances
$989T ▲ 19%

Weighted Average Fee
0.19% ▲ 3%

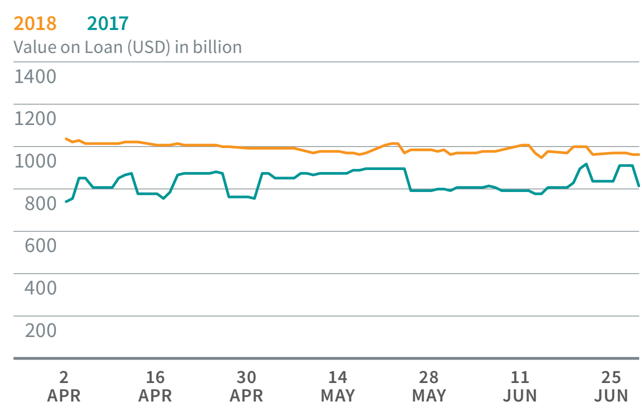
Average Inventory
$2.9T ▲ 17%

Utilisation
26.35% ▲ 1%

Q2 FEE TREND



Q2 BALANCE TREND



OVERVIEW

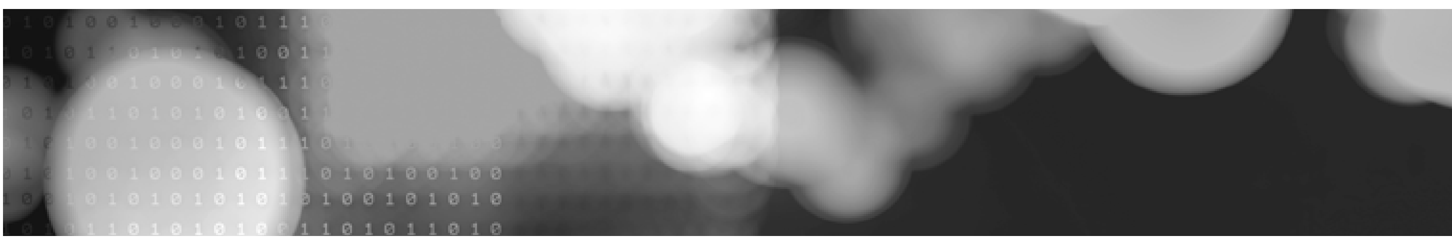
Revenues in Americas continue to surge	EM sovereign demand pointing up	Supply increase exceeds demand causing utilization to decline in Americas	Best post-crisis H1 for Government bond lending revenue

REGIONAL DETAILS

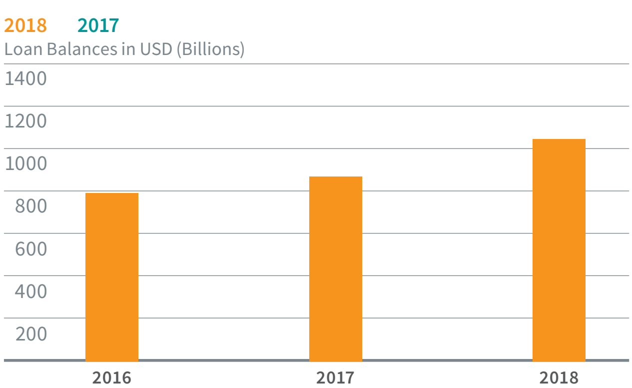
Country	Quarterly Securities Lending Income (USD M)	YoY Change	Average Value on Loan (USD Bn)	YoY Change	Weighted Fees	YoY Change	Average Lendable (USD Bn)	YoY Change	Average Utilisation	YoY Change
Americas	252.80	35.3%	546.50	16.4%	0.21%	16%	1,870.28	18.3%	24.15	-2.7%
Asia	9.04	-9.9%	40.56	62.1%	0.10%	-44%	67.67	49.5%	9.00	-15.1%
Europe	164.64	9.9%	402.21	19.2%	0.18%	-7%	974.15	12.5%	31.79	9.2%
Emerging Market Bonds	16.36	0.5%	17.84	20.3%	0.41%	-16%	228.17	25.7%	7.32	-0.1%

TOP 10 REVENUE GENERATING BONDS

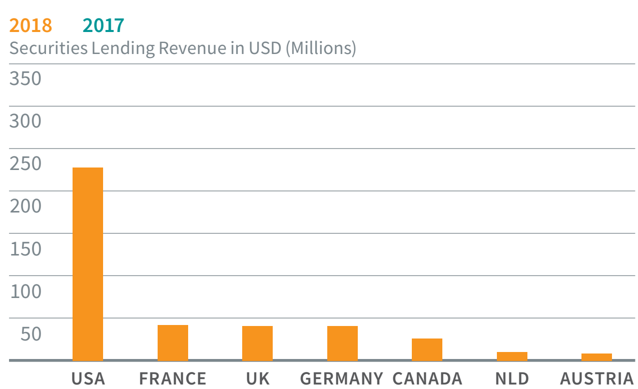
Instrument Name	ISIN	Currency	Issuer	Revenue Generated ($)
Republic Of France (3.25% 25-Oct-2021)	F40411LB8	EUR	France	3.1
Federal Republic Of Germany (1.5% 15-May-2023)	D20658T97	EUR	Germany	2.3
United States Treasury (1.375% 31-Jul-2019)	9128282K5	USD	USA	2.3
United States Treasury (1.875% 31-May-2022)	912828XD7	USD	USA	2.2
Republic Of France (0.5% 25-Nov-2019)	F43750CU4	EUR	France	2.2
United States Treasury (2% 15-Feb-2023)	912828UN8	USD	USA	2.2
United States Treasury (1.375% 30-Sep-2019)	9128282X7	USD	USA	2.1
United States Treasury (1.125% 31-Jan-2019)	912828V56	USD	USA	2.1
Federal Republic Of Germany (4.75% 04-Jul-2040)	D20659KP8	EUR	Germany	2.1
United States Treasury (1.5% 31-Oct-2019)	912828F62	USD	USA	1.8



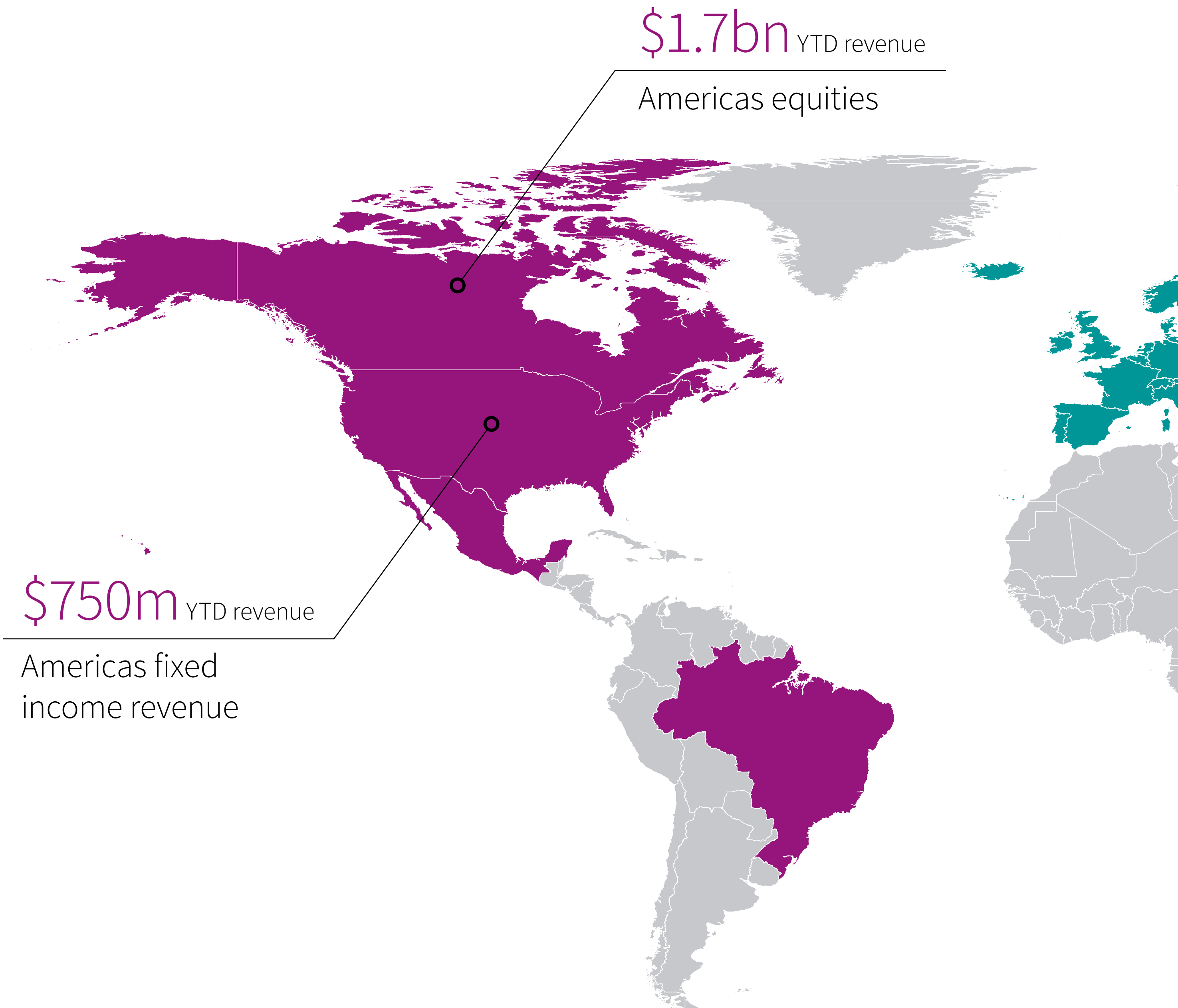
GOVERNMENT BOND BALANCE TREND



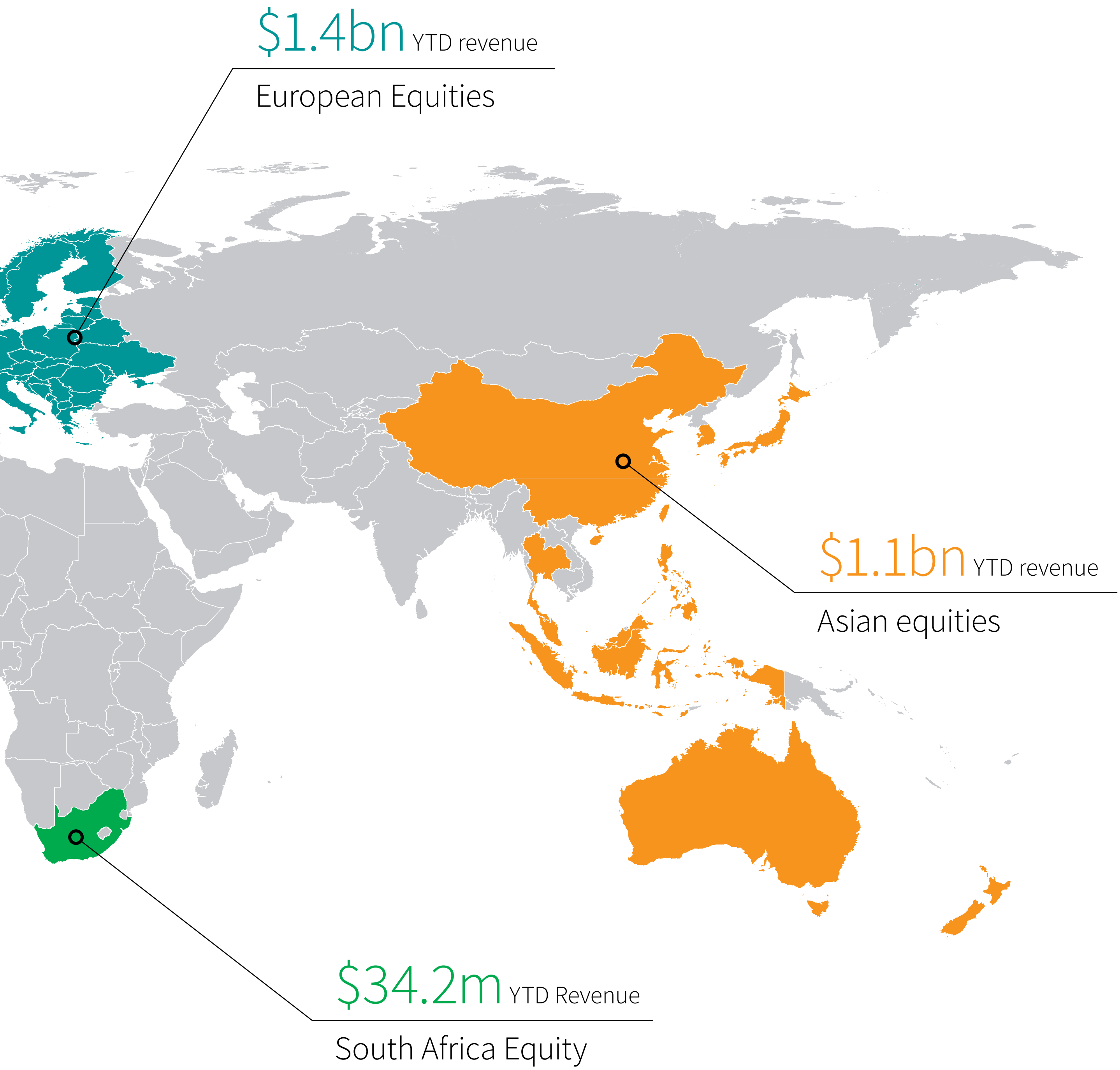
Q2 REVENUES BY ISSUER



Global snapshot



Asset Class	Lendable Assets ($T)	Loan Balance ($T)	% Non-Cash	Utilisation (%)	SL Fee (Bp)
All Securities	$20.4	$2.5	67%	9	0.40%
Government Bonds	$2.9	$1.2	77%	32	0.09%
Corporate Bonds	$3.2	$0.2	48%	6	0.38%
Equities	$13.6	$1.0	61%	5	0.74%
Depository Receipts	$0.3	$0.1	51%	18	0.44%
Exchange Traded Funds	$0.3	$0.1	33%	10	0.70%


$1.4bn YTD revenue
European Equities
$1.1bn YTD revenue
Asian equities
$34.2m YTD Revenue
South Africa Equity

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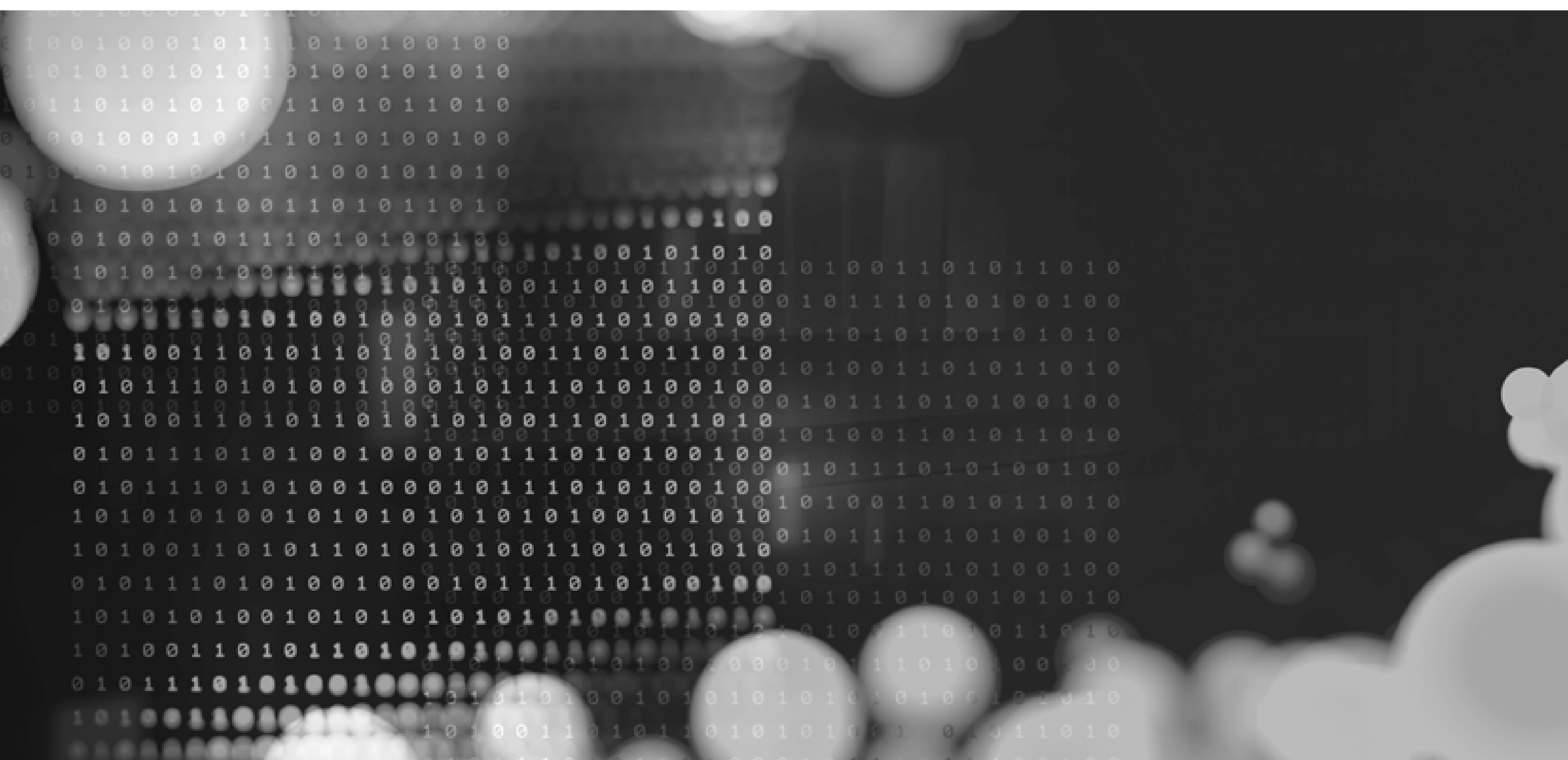

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