IHS Markit™

Securities Finance Quarterly Review

Q2 2017

Hi,

Welcome to the newest edition of our quarterly review.

As you will see throughout this issue, the industry challenges which started in the first quarter of 2017 continued over the last three months as year on year Q2 industry revenues were down by a tenth.

Equities lending was especially tough as Europe and North America both experienced a 20% fall in yoy revenues. Asian equities defied this slump however, as Japan continued to surge ahead.

Fixed income lending, across both the corporate and sovereign space, continued to be a growth area for the industry, hence our decision to highlight the growing popularity of sovereign bond term lending in a feature article. We see term trading playing a growing part of the industry's revenue mix in the coming years as balance sheet regulations come to bear.

Another growth area we were keen to explore further this quarter was ETF lending, which is still relatively untapped, especially outside North America. This relative scarcity means that investors that make their ETF assets available to lend are able to significantly, and in some cases totally, offset the costs incurred from ETF investing. Our hope is that educating investors on this revenue potential opens up more supply of these in-demand ETF assets going forward.

Regards,

Pierre Khemdoudi & Ed Marhefka

Managing directors and global co-heads of Securities Finance and Delta One products, IHS Markit

TABLE OF CONTENTS

Global Q3 Dividend Preview

$229bn

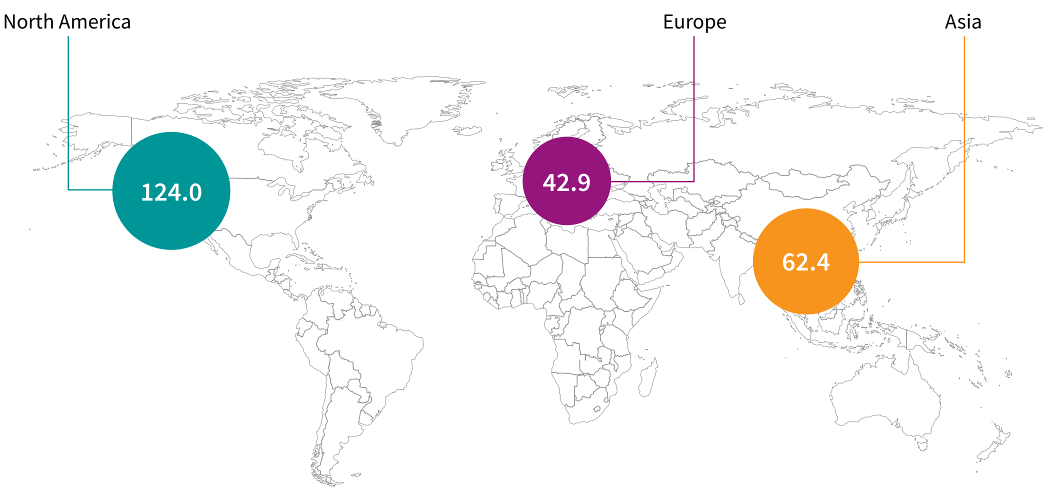
the total amount of dividend payments which we will forecast across the constituents of the "EMIX World Index" in the coming quarter

This represents a **6.2%** increase compared with the total paid over the same quarter in 2016

This is the **largest hike** in payments in over three years

REGIONAL BREAKDOWN

Due to the seasonal nature of dividend announcements in Europe and Asia, North America dominates dividends flow in Q3, accounting for more than the other two regions combined.



FIVE LARGEST DIVIDEND PAYERS

We expect Oil & Gas behemoth Royal Dutch Shell to declare the largest dividend in Q3, paying over $0.5bn more than Apple.

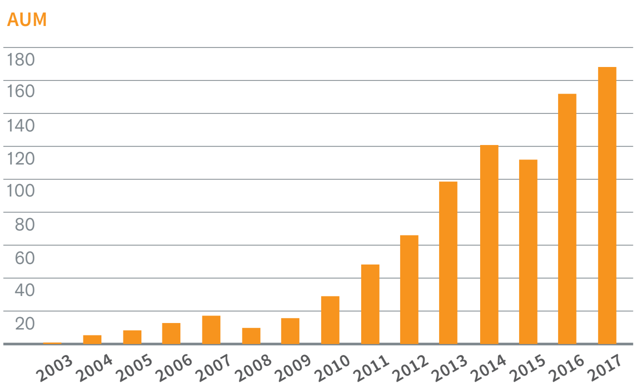
Company name	Sector	3 2017 (USD bn)	Forecast yield
Royal Dutch Shell A and B shares	Oil & Gas	$3.86	6.95%
Apple Inc.	Technology	$3.28	1.76%
Exxon Mobil Corp	Oil & Gas	$3.26	3.75%
AT&T Inc	Telecommunications	$3.01	5.12%
Microsoft Corp	Technology	$3.01	2.46%

FORECAST YIELDS BY SECTOR

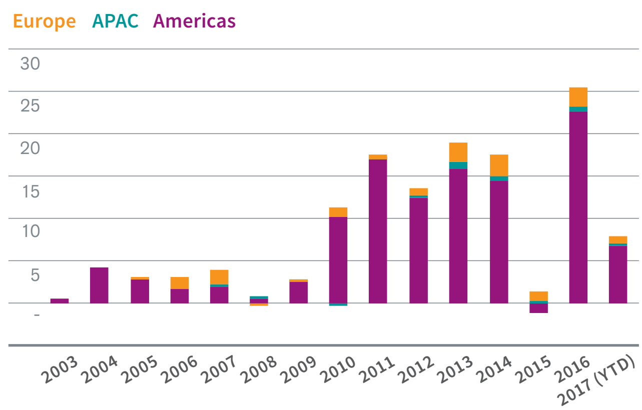
Telecoms and Oil & Gas are the top two sectors ranked by forecast yield. Both offer prospective yields over 4%, well above the total index figure of 2.5%.

Sector	Forecast yield
Telecommunications	4.12%
Oil & Gas	4.08%
Utilities	3.73%
Financials	2.96%
Basic Materials	2.71%
Consumer Goods	2.59%
Industrials	2.12%
Health Care	2.09%
Consumer Services	1.71%
Technology	1.53%

GLOBAL DIVIDEND ETFS



GLOBAL DIVIDEND ETFS



AUM SPLIT (BN)

 Americas 146.86

 APAC 3.75

 Europe 17.14

Dividend tracking ETFs manage an all-time high

$168bn

11%

more than at the end of 2016

Americas listed funds mange over

80%

of all dividend tracking AUM

Investors across the globe have consistently invested in the strategy in the

14 years

since the first fund launched

It pays to lend ETFs

ETFs have two potential sources of revenue from securities lending activities:

'Inside' - Lending of underlying securities;
ETF issuers lend underlying fund assets for the benefit of all fund investors.

'Outside' - Lending of the ETF units;
ETF investors can potentially earn additional income by lending their ETF units through a lending agent.

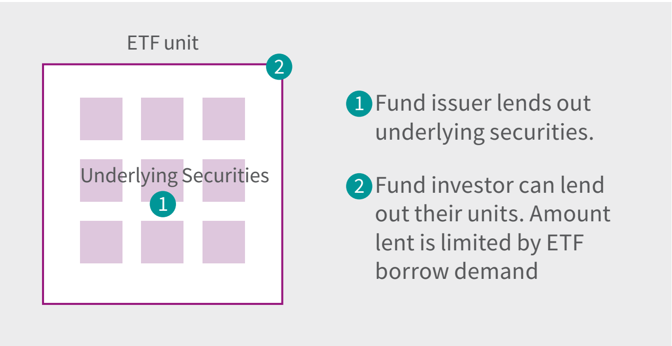
The ETF securities lending debate has largely revolved around the former, "inside" lending, where ETF issuers lend out the assets purchased to replicate their chosen benchmark.

What investors have historically been less aware of are the increasing opportunities and benefits from lending out the ETF units themselves.

In several cases revenues from "outside" lending, which is the prerogative of an ETF's ultimate beneficial owner, vastly outweighs those earned from the type of lending most commonly associated with the asset class.

As can be seen in the above diagram, an investor has a choice of several methods in order to obtain a specific exposure, each with differing potential sources of lending revenue. With investors now looking to squeeze every possible basis point from the market, we look to shed some light on the relatively niche practice of ETF Unit lending and the benefits it stands to deliver investors.

LENDING OPPORTUNITIES VARY BASED ON THE INTRUMENTS USED



ETF borrow demand dynamics

The forces driving demand to borrow physical ETF units are numerous, but the most common reasons include: investors wishing to hedge assets tracked by an ETF, market making activity in the funds themselves, and the growing lists of derivatives that track them. Although ETFs have been around for over two decades now, the asset class is still relatively underrepresented in the securities lending market, which means that the growing pool of investors looking to borrow ETFs often struggle to get their hands on the most in-demand lines. In fact, a quarter of the 2,200 ETFs that feature inside lending programs have over half their inventory out on loan.

Enhanced Lending returns

US listed ETFs are the most widely traded in the securities lending market due to that market's relative maturity. Securities lending utilisation rates for these ETFs have been three times higher than those of conventional US equities in the first three months of the year. Notably, investors were also willing to pay a premium to borrow US ETFs, which have a cost of 55bps to borrow on average, a quarter more than the 46bps earned by conventional US equities.

The combination of the constant demand for ETFs, and the relatively high fees which can be drawn from this demand, means that global ETF investors earned over $167m from lending out ETFs over the last 12 months. This represents a return of 11.6 basis points on the ETF assets that are available in lending programs over this period.

ETF lending returns are not only restricted to the US market. There is a fast-developing European ETF lending market with increasing demand and supply, as we noted in our 2017 Q1 Securities Finance Quarterly Review highlights. In fact, European listed ETF lending revenue increased 15% year on year in Q1.

Reducing the cost of ETF ownership

Lending returns earned by investors have the potential to significantly offset the fees charged by ETF issuers. ETF price competition and the resulting fee cutting, combined with increasing lending revenue, has created the opportunity for investors to reduce their cost of ownership in the asset class. The total cost charged to hold the ETFs that sat in in lending programs over the last 12 months was $417m – which means that investors were able to recoup a substantial 40% of their costs simply by making their ETF assets available to lend.

Forming part of the investment decision?

As with the rest of the securities lending market, the bounty earned from lending out ETFs is unevenly distributed, with the 10 largest revenue generating funds amassing one-third of all revenues.

Those ETFs which generated the most fees in the securities lending market over the last 12 months are very diverse in terms of their exposures. They include heavily traded mega-S&P500 funds, funds which track hard to short asset classes such as high yield bonds and emerging market equities, and those that track relatively volatile asset classes like small cap stocks and biotechs.

While asset class is a large determinant of an investment's performance in the securities lending market, not every fund is able to earn the same revenues for their underlying beneficial owners. Historical lending fees, whilst no guarantee of future returns, can potentially be one input into an investor's decision on how best to obtain a desired exposure.

One example of this disconnect is seen in the two high yield bonds funds which feature among the top ten largest revenue generating ETFs: the iShares iBoxx $ High Yield Corporate Bond ETF (HYG) and the SPDR Barclays High Yield Bond ETF (JNK). Both funds track the same assets, yet investors who made their HYG shares available to lend were able to generate 73bps of total securities lending returns over the last 12 months, and those that did the same for JNK generated 23bps, or less than a third of the HYG haul. HYG costs 10bps more than JNK, yet the net cost of ownership when taking securities lending returns into account favors HYG.

Investors who made their HYG shares available to lend were able to more than offset the cost of owning that ETF over the last 12 months, while earning a net 23bps by investing in high yield bonds through an in-demand ETF. Three other funds among the ten largest securities lending fee generating ETFs earned a net profit for investors willing to lend.

Such a feat isn't uncommon given that 151 global ETFs have earned more for their investors in securities lending programs than the costs incurred by these investors in ETF management fees over the last 12 months. The large majority of these instances occurred in North America – yet European ETF investors, who do not enjoy the type of developed trading and securities lending ecosystem as their North American peers, have still managed to more than recoup their costs in 17 ETFs through securities lending.

		Total SL Revenue Earned (12 months to June 20th)	TTM Return To Lendable	ETF Fee
iShares iBoxx $ High Yield Corporate Bond ETF	HYG	21,134,813	73	50
iShares Russell 2000 ETF	IWM	16,398,675	52	20
iShares MSCI Emerging Markets ETF	EEM	8,537,547	27	69
SPDR S&P 500 ETF	SPY	5,872,042	8	9.45
SPDR Barclays High Yield Bond ETF	JNK	2,674,697	23	40
iShares MSCI Brazil Capped ETF	EWZ	2,613,601	43	62
iShares MSCI Mexico Capped ETF	EWW	2,529,917	67	48
iShares U.S. Real Estate ETF	IYR	2,227,413	42	43
SPDR S&P Biotech ETF	XBI	1,919,971	111	35
iShares Core S&P 500 ETF	IVV	1,739,435	2	7

The largest net fee generator over this period was the iShares Core FTSE 100 UCITS ETF (IFS). IFS had an average of $300m of its shares in lending programs over the last 12 months, which cost investors $220,000 or 7 bps. These investors went on to earn over $750,000 (23 bps) from this inventory, which translates into over $500,000 of net income.

Increasing ETF lendable inventory still low in comparison to conventional equities

There appears to be little sign of this revenue trend ending anytime soon, as ETFs are still relatively scarce in lending programs. The value of ETF assets in lending programs has surged by over 50% to an all-time high of $230bn in the last two years. In fact, only 5% of the total ETF AUM sits in lending programs; this is woefully behind conventional equities considering that over a quarter of the Russell 3000's market cap now sits in lending programs. This gap has been narrowing given the growth of ETF inventories in lending programs, but there still remains a massive availability gulf for the asset class.

ETF issuers would be well placed to encourage further growth in lendable inventory; a liquid ETF securities lending market, much like the conventional equities, helps foster the cash market by enabling market participants to quickly source ETFs without engaging in the creation process. We hope to play our part in this process by shining a light on the opportunities that ETF lending offers beneficial owners.

All ETFs

Lendable Value (USD Bn)

Asian Equities

Asian equities securities lending revenues came out of the Q1 slump as Hong Kong specials heated up again and Japan continued to surge ahead.

Asian securities lending rebounded in the second quarter as the revenue tally earned across the region jumped by 2% year on year to $260m. This helped the region regain some of the ground lost in the disappointing first quarter which came up 8% short of the previous year's tally.

The largest change between the two quarters was Hong Kong, which managed to bounce back from a 30% Q1 revenue deficit to come just 5% short of the Q2 2016 tally. The reversal of fortunes was driven by a mixture of better pricing and improved balances.

Japanese equities, which outperformed in Q1 despite a disappointing regional quarter overall, continued to forge forward after the country's securities lending revenues jumped by over 45% yoy in Q2 to come in just shy of $100m. Fees continued to drive the surge in revenues as they jumped 46% compared to the Q2 2016 average. Balances continued to track flat yoy near the $27bn mark.

Japanese tech stocks continue to make up the majority of the region's top specials as short sellers targeted Japanese healthcare, software and hardware manufacturers. Sharp has replaced Cyberdyne at the top of the revenue league table as the equity generated over $7.8m in revenues in the quarter, the most of of any stock in the region over Q2.

Australian revenues, which fell by over a quarter yoy in Q1, also rebounded strongly to match the total gathered in Q2 2016.

Overview

Quarterly Revenues
$260M ▲ 2%

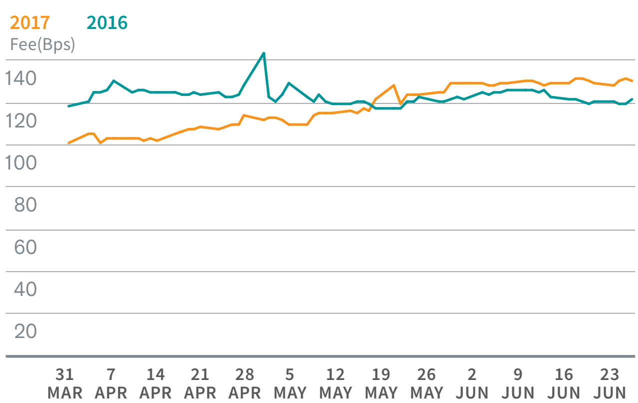
Average Balances
$67B ▼ 3%

Weighted Average Fee
1.49% ▲ 7%

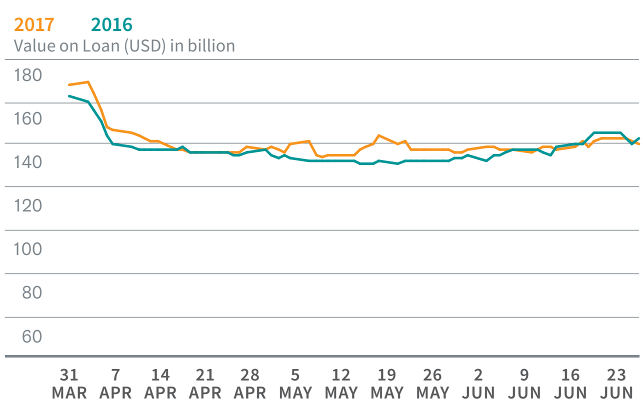
Average Inventory
$1.3T ▲ 24%

Utilisation
4.9% ▼ 22%

Q2 FEE TREND



Q2 BALANCE TREND



OVERVIEW

- Japan's strong performance delivered most of the revenue increase
- Short sellers returned to the Hong Kong Market
- Software firms, especially Japanese ones, saw the largest increase in borrow activity
- Every country across the region registered a rise in lendable

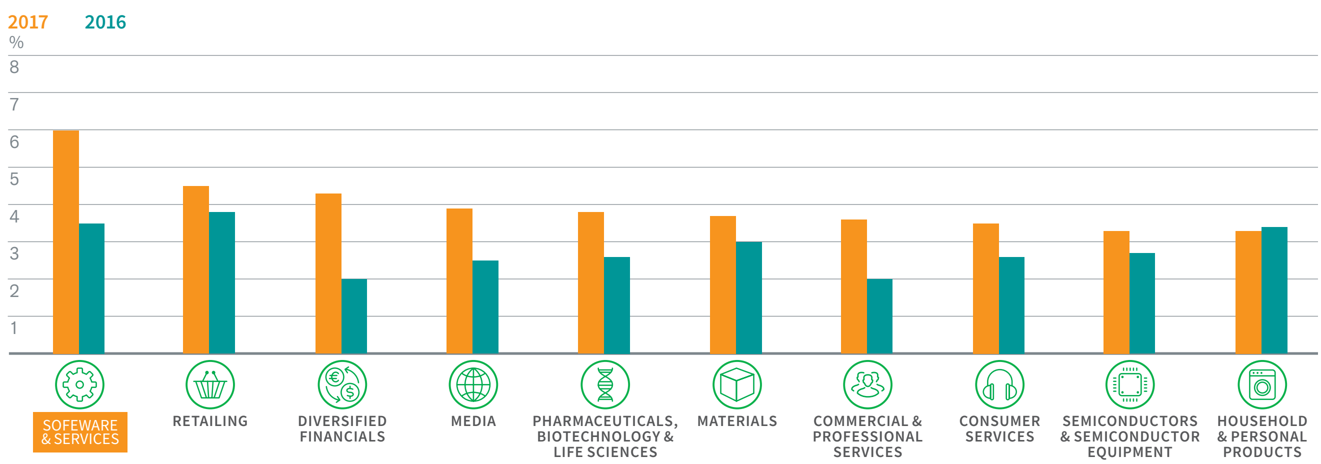
AVERAGE VALUE ON LOAN

Country Details	Quarterly Secutiries 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
Australia	16.6	0%	11.4	-10%	0.53%	19%	218.8	26%	5.2	-29%
Hong Kong	59.8	-5%	16.2	2%	1.43%	-7%	286.2	28%	5.6	-21%
Indonesia	0.1	44%	0.1	70%	0.89%	-15%	1.4	35%	3.8	26%
Japan	99.8	45%	27.6	1%	1.42%	46%	635.8	19%	4.3	-15%
Malaysia	6.5	-23%	0.8	-25%	3.30%	2%	10.8	15%	7.2	-34%
New Zealand	0.7	15%	0.3	20%	0.89%	-6%	5.7	6%	5.2	13%
Philippines	0.1	-41%	0.0	2%	1.16%	-42%	1.3	6%	1.4	-4%
Singapore	5.7	-39%	2.2	-28%	1.00%	-16%	45.6	20%	4.7	-40%
South Korea	43.8	-32%	5.3	-9%	3.27%	-25%	108.4	42%	4.9	-36%
Taiwan	25.5	16%	3.8	3%	2.62%	13%	48.1	39%	7.9	-26%
Thailand	1.9	40%	0.5	-9%	1.61%	61%	12.8	43%	3.7	-37%

TOP 10 REVENUE GENERATING STOCKS

Instrument Name	Ticker	Sector	Country	Revenue Generated ($)
Sharp Corp	6753	Consumer Durables & Apparel	Japan	9,455,098
China Evergrande Group	3333	Real Estate	Hong Kong	7,719,116.50
Celltrion Inc	068270	Pharmaceuticals, Biotechnology & Life Sciences	South Korea	6,831,285.50
Cyberdyne Inc	7779	Health Care Equipment & Services	Japan	6,618,687.00
Fullshare Holdings Ltd	607	Real Estate	Hong Kong	5,712,941.00
Byd Co Ltd	1211	Automobiles & Components	Hong Kong	4,032,711.25
Jig-Saw Inc	3914	Software & Services	Japan	3,124,249.75
Akatsuki Inc	3932	Software & Services	Japan	2,416,004.25
Oci Co Ltd	010060	Materials	South Korea	2,303,216.75
Peptidream Inc	4587	Pharmaceuticals, Biotechnology & Life Sciences	Japan	2,064,944.38

AVERAGE % OF SHARES ON LOAN



European Equities

European equities securities lending revenues continued to slip over the quarter as the revenue slump spread to countries that had proved resilient in Q1.

Germany and Italy managed to have a healthy first quarter in terms of revenue, however, this trend proved to be short lived as both countries saw their Q2 aggregate securities lending revenue fall by over 30%. The slump in revenue was near universal given that 14 of the 17 main European markets joined Italy and Germany in registering a decline in yoy securities lending revenue.

The single industry bright spot was Belgium which saw its revenue increase by 50% yoy to $24.2m.

While revenues proved challenging across the board, inventory levels continued to climb ever higher and the industry now has to spread the dwindling revenues across a lending pool that is 13% higher on average than that seen in Q2 2016.

The one solace the industry can take from this quarter is that balances have held up relatively well as the $155bn of loans that were lent out over the quarter are only 1% off the average registered over Q2 2016.

UK equities, which have seen increased borrowing in the 12 months since the Brexit referendum, have continued to come up short in terms of securities lending revenues as their total revenue tally was off by a quarter from that gathered over Q2 of last year.

Overview

Quarterly Revenues
$518M ▼ 23%

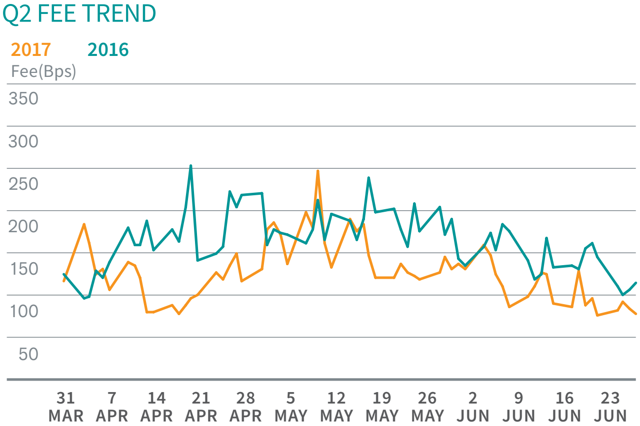
Average Balances
$155B ▼ 1%

Weighted Average Fee
1.31% ▼ 21%

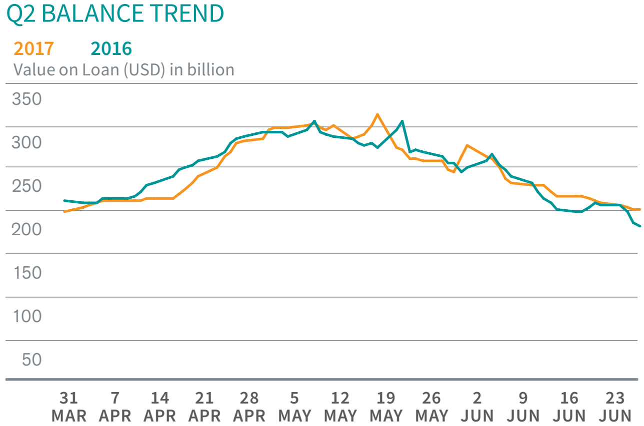
Average Inventory
$2.2T ▲ 13%

Utilisation
6.9% ▼ 12%

Q2 FEE TREND



Q2 BALANCE TREND



OVERVIEW

German revenues sank by nearly a third in Q2 after a strong first quarter

Banco Popular shares generated over $7m in fees before being delisted

Utilisation rates sank across the board as inventory levels climbed ever higher

Belgium was the only market to register a material increase in revenues

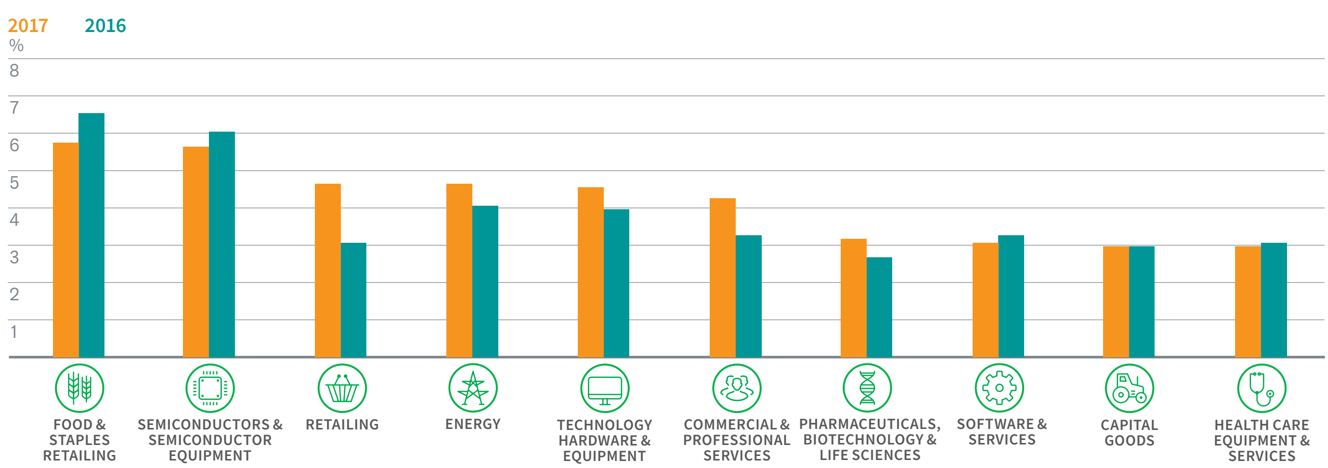
AVERAGE VALUE ON LOAN

Country Details	Quarterly Secutiries 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
Austria	1.9	-27%	0.9	-15%	0.80%	-12%	11.5	50%	8.1	-43%
Belgium	24.2	50%	4.3	34%	2.23%	14%	62.5	42%	6.9	-6%
Czech Republic	1.4	-15%	0.1	-8%	5.32%	-6%	1.9	39%	5.4	-34%
Denmark	4.0	-54%	3.7	16%	0.42%	-60%	58.6	5%	6.3	10%
Finland	22.5	-50%	3.3	-39%	2.74%	-18%	32.2	6%	10.2	-43%
France	185.8	-7%	41.4	16%	1.74%	-19%	327.2	25%	12.7	-7%
Germany	49.1	-30%	18.6	-4%	1.05%	-25%	323.3	10%	5.8	-13%
Italy	27.8	-44%	7.4	-15%	1.48%	-34%	85.7	21%	8.6	-30%
Netherlands	14.4	-14%	7.8	12%	0.74%	-22%	114.4	7%	6.8	5%
Norway	29.2	-39%	3.9	-11%	2.96%	-31%	24.1	21%	16.2	-26%
Poland	4.0	19%	1.2	45%	1.26%	-16%	10.0	43%	12.0	1%
Portugal	1.6	-43%	0.5	-35%	1.35%	-11%	6.8	15%	6.8	-43%
Spain	20.7	-1%	6.2	-24%	1.28%	38%	101.2	33%	6.2	-43%
Sweden	64.0	-40%	10.7	-6%	2.38%	-36%	104.8	25%	10.2	-25%
Switzerland	25.7	0%	15.1	-8%	0.67%	11%	300.7	9%	5.0	-15%
Turkey	5.6	-16%	0.8	-24%	2.83%	13%	9.2	6%	8.5	-28%
UK	35.9	-26%	28.9	-4%	0.48%	-21%	645.6	4%	4.5	-8%

TOP 10 REVENUE GENERATING STOCKS

Instrument Name	Ticker	Sector	Country	Revenue Generated ($)
Total Sa	FP	Energy	France	17,818,330
Axa Sa	CS	Insurance	France	14,476,366
Sanofi Sa	SAN	Pharmaceuticals, Biotechnology & Life Sciences	France	14,440,572
Danone Sa	BN	Food, Beverage & Tobacco	France	12,179,730
Bnp Paribas Sa	BNP	Banks	France	12,004,145
Sampo Oyj	SAMPO	Insurance	Finland	9,749,198
Banco Popular Espanol Sa	POP	Banks	Spain	7,731,189
Nokia Oyj	NOKIA	Technology Hardware & Equipment	France	7,674,439
Societe Generale	GLE	Banks	France	7,427,299
Intesa Sanpaolo Spa	ISP	Banks	Italy	7,144,360

AVERAGE % OF SHARES ON LOAN



Americas Equities

Declining balances and fees in US equities meant that securities lending revenues in the Americas once again fell well short of the previous year's total.

The US continues to be the main driving force in the region as the country's revenue tally was again over a fifth lower than that registered over the same period 12 months prior. No single cause was behind the fall in revenues as both balances and fee were off by a tenth from the levels registered over Q2 of 2016.

The fall in the latter of the two numbers is likely driven by the ever growing inventory pile. The recent bull market means that the lending pool is now 17% deeper than 12 months ago across the country. This bumper inventory figure has helped push the utilization rates for US equities below the 5% mark.

Canadian equities also joined the disappointment as their revenue fell by 5% yoy.

The one bright spot was balances, which ticked up over the quarter and led to demand levels at the end June that were on par with those seen at the same time in 2016. Whether or not the industry manages to capitalize on this rising demand remains to be seen, but a return of short sellers is definitely a precursor to a turnaround in the industry's fortunes.

There were also some encouraging signs coming from the specials front as newly listed Snap was able to generate a significant $24.4m of revenues for beneficial owners over the quarter, which was $9m more than the second most special stock, electric carmaker Tesla.

ADRs also helped cushion the blow from the disappointing quarter as a large increase in demand to borrow the asset class helped it generate 10% more revenues over the quarter.

Overview

Quarterly Revenues
$634M ▼ 20%

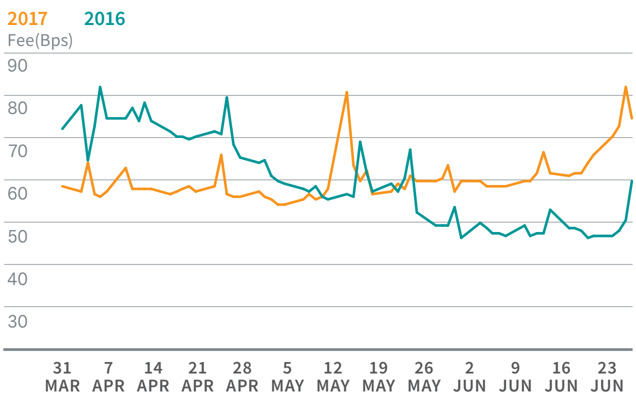
Average Balances
$359B ▼ 10%

Weighted Average Fee
0.5% ▼ 7%

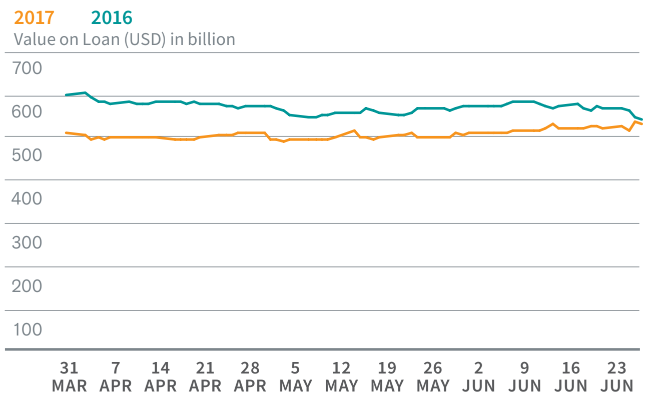
Average Inventory
$7T ▲ 17%

Utilisation
4.9% ▼ 23%

Q2 FEE TREND



Q2 BALANCE TREND



OVERVIEW

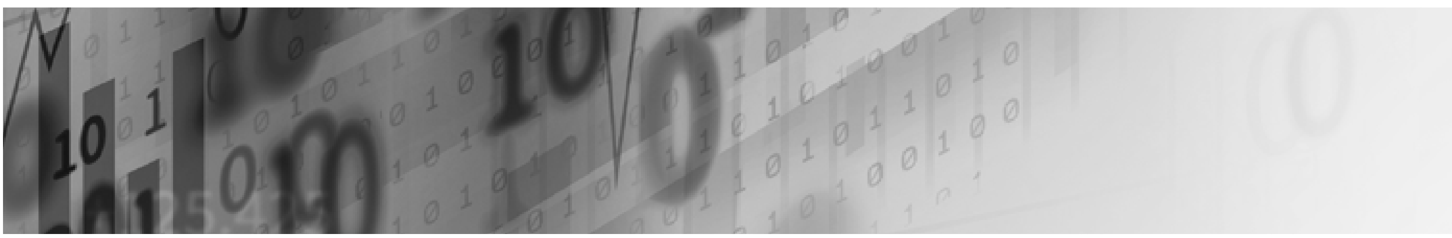
Snap top of the revenue table after its shares were targeted by short sellers after its IPO	Retail shares saw the largest increase in average demand to borrow	ADRs saw a large increase in demand to borrow which helped drive revenues	Utilisation rates tumbled due to the rise in inventory

AVERAGE VALUE ON LOAN

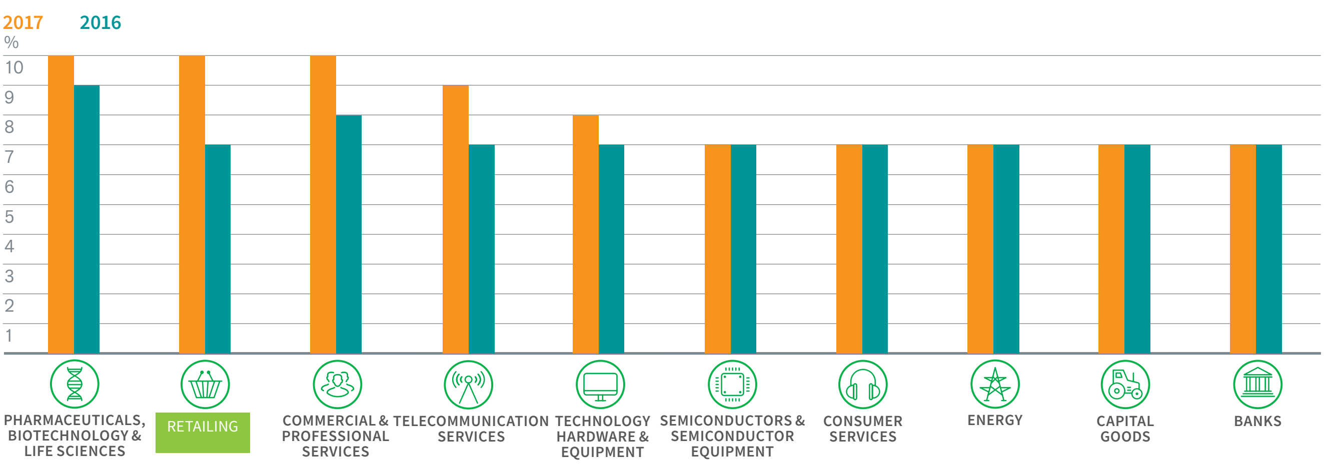
Country Details	Quarterly Securities Lending Income (USD M)	YoY Change	Average Value on Loan (USD Bn)	YoY Change	Weighted Fees	YoY Change	Average Lendable (USD Bn)	YoY Change	Average Utilisation	YoY Change
Brazil	1.7	-	0.3	-	2.43%	-	2.5	46%	11.0	-
Canada	82.4	-5%	35.9	-18%	0.88%	16%	454.6	11%	7.9	-26%
Mexico	1.1	-4%	0.7	11%	0.49%	-11%	25.5	8%	2.6	3%
USA	549.0	-22%	322.3	-9%	0.53%	-10%	6,798.2	17%	4.7	-22%
ADRs	43.0	11%	30.5	46%	0.47%	-25%	173.1	32%	17.6	11%

TOP 10 REVENUE GENERATING STOCKS

Instrument Name	Ticker	Sector	Country	Revenue Generated ($)
Snap Inc	SNAP	Software & Services	USA	24,428,244
Tesla Inc	TSLA	Automobiles & Components	USA	15,276,542
Sears Holdings Corp	SHLD	Retailing	USA	11,773,746
Sirius Xm Holdings Inc	SIRI	Media	USA	11,719,996
Under Armour Inc	UAA	Consumer Durables & Apparel	USA	10,496,902
Home Capital Group Inc	HCG	Banks	Canada	9,673,435
Visa Inc	V	Software & Services	USA	9,509,440
Acacia Communications Inc	ACIA	Technology Hardware & Equipment	USA	8,773,443
Valvoline Inc	VVV	Materials	USA	8,729,953
Rh	RH	Retailing	USA	8,365,450



AVERAGE % OF SHARES ON LOAN



Exchange Traded Funds

ETFs managed to turn around a challenging Q1 outcome to post a healthy 13% rise in aggregate revenues over Q2.

ETFs were the bright spot in terms of equities securities lending over Q2 as a healthy demand and better loan rates meant that beneficial owners were able to generate a robust $43.4m of revenues over the quarter.

North American listed funds, which had a disappointing first quarter, were able to turn their fortunes around over Q2 as lenders capitalized on increased demand for the asset class and achieved higher fees for the loans against the asset class.

European listed products continued to register strong growth as lenders were able to generate over 60% more revenues over Q2 than the same period 12 months prior. This large rise in revenues was primarily driven from the demand side of things as the average value on loan for the asset class was 56% higher yoy.

North American funds continued to dominate the list of the 10 highest revenue generating funds, which was once again topped by the iShares iBoxx $ High Yield Corporate Bond Fund.

Investors made a greater portion of their ETF assets available for lending, as the total value of ETF assets in lending programs climbed to an all-time high of $216bn over the quarter.

Lending of Asian listed funds continued to trail the wider industry as Q2 saw another fall in both the demand as well as the revenues generated.

Overview

Quarterly Revenues
$43M ▲ 13%

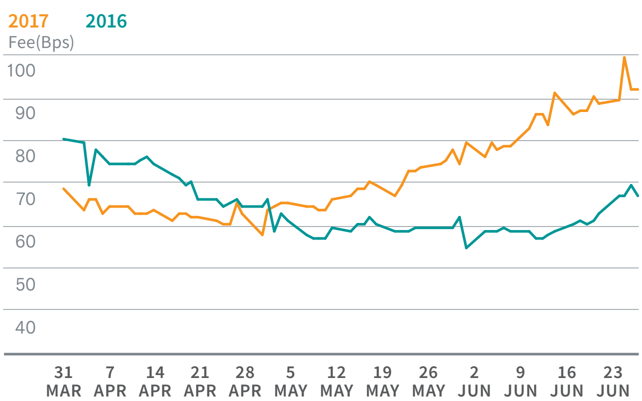
Average Balances
$23B ▲ 7%

Weighted Average Fee
0.65% ▲ 14%

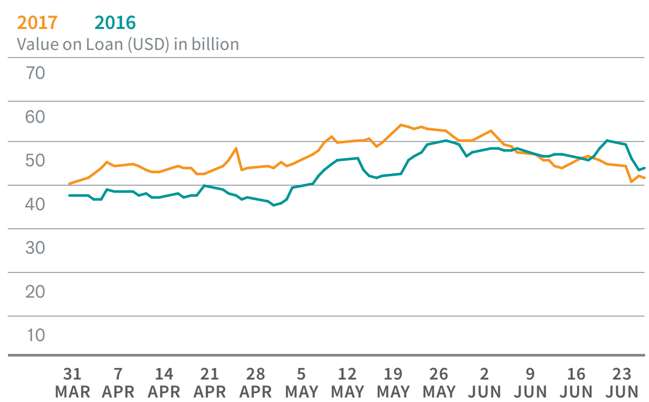
Average Inventory
$216B ▲ 27%

Utilisation
11% ▼ 16%

Q2 FEE TREND



Q2 BALANCE TREND



OVERVIEW

HYG generated over twice the fees than any other ETF	European revenues surge due to increasing demand	Blackrock's iShares funds generated over two thirds of all fees generated	US funds made up the entirety of the top revenue generating funds

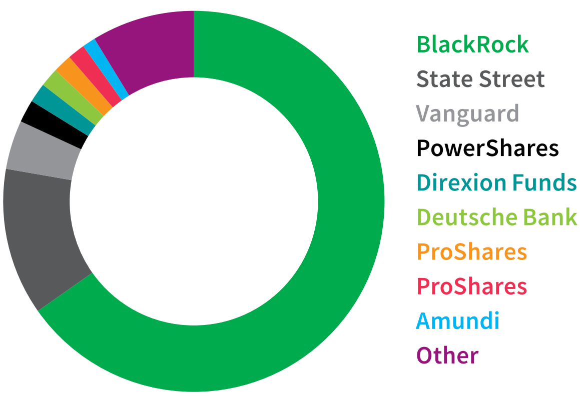
AVERAGE VALUE ON LOAN

Country Details	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
North America	37.7	9%	22.2	5%	0.59%	13%	135.6	20%	16.3	-13%
Asia	0.6	-49%	0.2	-41%	1.26%	-11%	1.2	-38%	17.1	-4%
Europe	4.6	64%	1.2	56%	1.47%	5%	38.3	25%	3.2	25%

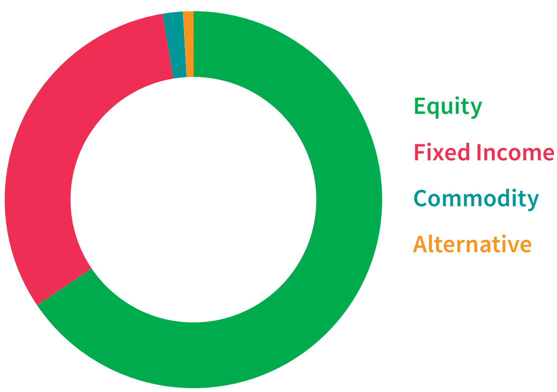
TOP 10 REVENUE GENERATING FUNDS

Instrument Name	Ticker	Asset Class	Country	Revenue Generated ($)
Ishares Iboxx $ High Yield Corporate Bond Fund	HYG	Fixed Income	USA	8,650,473.00
Ishares Russell 2000 Etf	IWM	Equities	USA	3,182,664.75
Ishares Msci Emerging Markets Etf	EEM	Equities	USA	2,271,667.50
Spdr S&P 500 Etf Trust	SPY	Equities	USA	1,159,842.88
Spdr Bloomberg Barclays High Yield Bond Etf	JNK	Fixed Income	USA	1,054,519.63
Ishares Msci Mexico Investable Market Index Fund	EWW	Equities	USA	996,717.88
Ishares Msci All Country Asia Ex Japan Etf	AAXJ	Equities	USA	559,556.00
Ishares China Large-Cap Etf	FXI	Equities	USA	475,279.72
Spdr S&P Biotech Etf	XBI	Equities	USA	451,845.59
Ishares Msci Brazil Index Fund	EWZ	Equities	USA	432,404.88

LENDING REVENUES BY ISSUER



LENDING REVENUES BY ASSET CLASS



Corporate Bonds

Corporate bonds defied the equities revenue headwinds as the asset class generated 6% more revenues over the second quarter.

Conventional bonds were once again the driving force behind the solid revenue trend as the 7% increase in the demand to borrow these assets meant that beneficial owners were able to generate 6% more revenues from lending them out.

High yield bonds made up nine of the ten largest revenue generating bonds, however, the revenues generated from lending out investment grade bonds were the driving force behind this quarter's strong performance.

Convertible bonds rebounded from a challenging opening quarter to register a 10% rise in income over the quarter. This was entirely driven by improved pricing of outstanding loans as the fees generated from the asset class over the quarter were 12% higher than those achieved in Q1 2016.

Asset backed securities have continued to come up short for beneficial owners as a lack of demand for the asset class, and a collapse in the fees lenders were able to achieve, meant that the asset class generated nearly 60% less revenues for beneficial owners.

Encouragingly for existing lenders of corporate bonds, there does not appear to be nearly the same level of inventory buildup for the asset class than that registered in the equities space. The value of all corporate bonds has only climbed by 5% over the last 12 months which is less than half of the inventory uptick registered by equities over this period of time.

Overview

Quarterly Revenues
$180M ▲ 6%

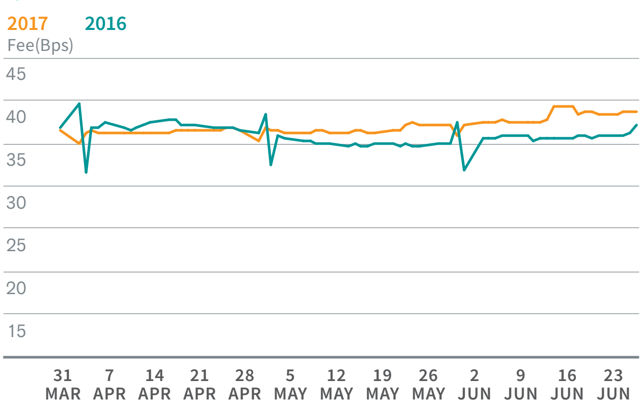
Average Balances
$152B ▲ 7%

Weighted Average Fee
0.35% ▼ 2%

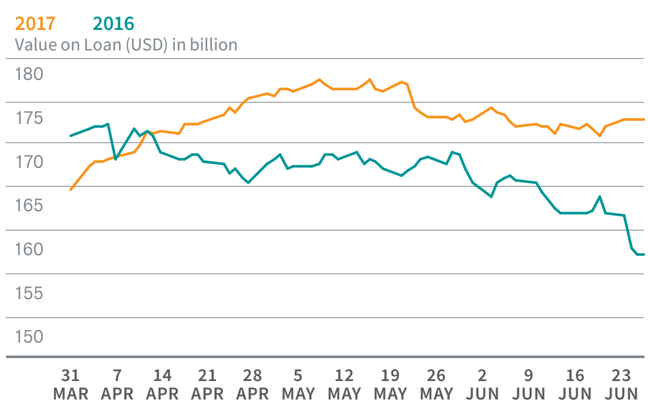
Average Inventory
$3T ▲ 5%

Utilisation
5.1% ▲ 2%

Q2 FEE TREND



Q2 BALANCE TREND



OVERVIEW

Conventional bonds generated the majority of corporate bond revenues

Inventories rose at a much more modest pace than the rest of the market

High yield bonds made up the majority of the top specials in the asset class

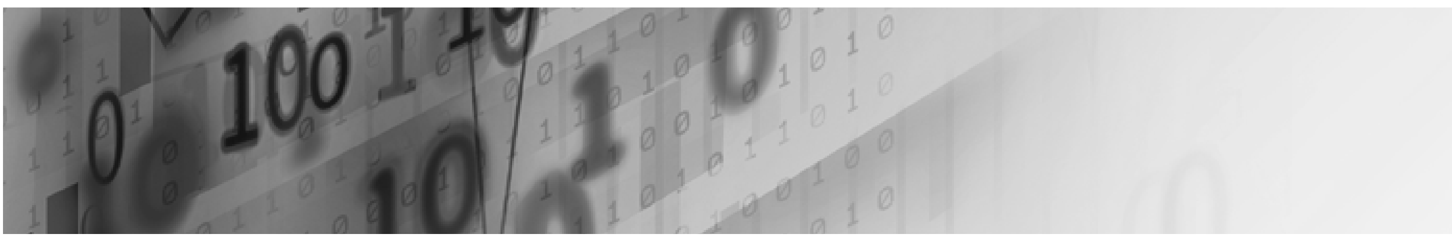
Conventional bond demand outpaced the rise in supply which boosted utilisation rates

AVERAGE VALUE ON LOAN

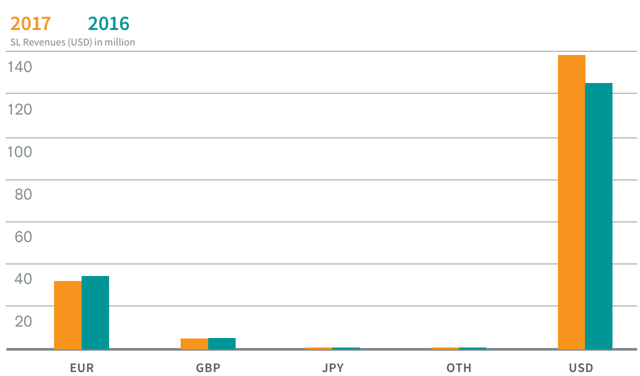
Country Details	Quarterly Securities Lending Income (USD M)	YoY Change	Average Value on Loan (USD Bn)	YoY Change	Weighted Fees	YoY Change	Average Lendable (USD Bn)	YoY Change	Average Utilisation	YoY Change
Asset Backed Securities	0.1	-59%	0.2	-30%	0.18%	-50%	217.0	-5%	0.1	-26%
Conventional Bonds	170.6	6%	148.0	7%	0.34%	-2%	2,743.8	6%	5.4	1%
Convertible Bonds	10.2	10%	4.3	-3%	0.81%	12%	41.6	-9%	10.3	7%

TOP 10 REVENUE GENERATING BONDS

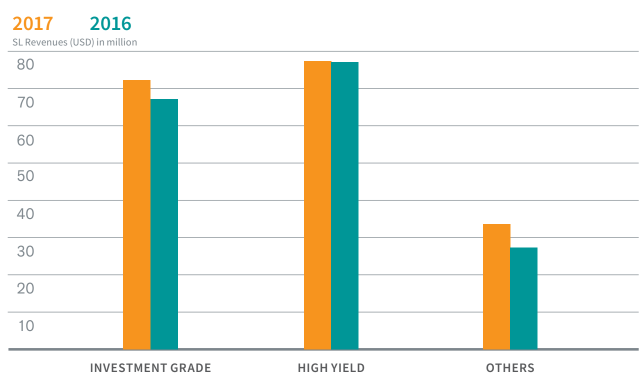
Instrument Name	ISIN	Ratting	Country	Revenue Generated ($)
Tenet Healthcare Corp (6.75% 15-Jun-2023)	US88033GCN88	High Yield	USA	1,330,112.00
Chesapeake Energy Corp (8% 15-Jan-2025)	US165167CT21	High Yield	USA	1,327,135.88
Hertz Corp (5.5% 15-Oct-2024)	US428040CS68	High Yield	USA	1,126,407.88
Avis Budget Car Rental Llc (5.5% 01-Apr-2023)	US053773AV98	High Yield	USA	985,513.44
Anadarko Petroleum Corp (5.55% 15-Mar-2026)	US032511BN64	High Yield	USA	964,927.56
Chs/Community Health Systems Inc (8% 15-Nov-2019)	US12543DAL47	High Yield	USA	899,451.88
Oasis Petroleum Inc (6.875% 15-Mar-2022)	US674215AG39	High Yield	USA	751,368.38
Windstream Services Llc (7.75% 01-Oct-2021)	US97381WAT18	High Yield	USA	740,423.81
Whiting Petroleum Corp (6.25% 01-Apr-2023)	US966387AP71	High Yield	USA	720,326.25
Teva Pharmaceutical Finance Netherlands Iii Bv (3.15% 01-Oct-2026)	US88167AAE10	Investment Grade	USA	714,012.94



Q2 SECURITIES LENDING REVENUES BY DENOMINATION



Q2 SECURITIES LENDING REVENUES BY RATINGS CATEGORY



Government bonds

Government bonds have once again proved to be the single best performing asset class as bumper balances and improved pricing saw revenues jump by 25% yoy.

The bumper revenues generated by government bonds over the quarter were driven by those issued by American governments as these bonds generated over $80m of extra revenues for beneficial owners over the quarter compared to the previous Q2. This number, which translates into a solid 30% uplift in the yoy quarterly revenue tally, was driven by an increase in fees and a 20% increase in average loan balances.

European government bonds also drove results forward over the quarter, but by a relatively tame 15%. This number was largely driven by better pricing power as the ongoing ECB quantitative easing has created a shortage of high quality liquid assets across the region.

German bunds were the only European bonds to feature among the top ten largest revenue generating issuances.

Bonds issued by Asian issuers were the exception to the rule as the asset class generated 40% less revenues for beneficial owners yoy after the demand to borrow the asset class fell by nearly a third.

Overview

Quarterly Revenues
$388M ▲ 25%

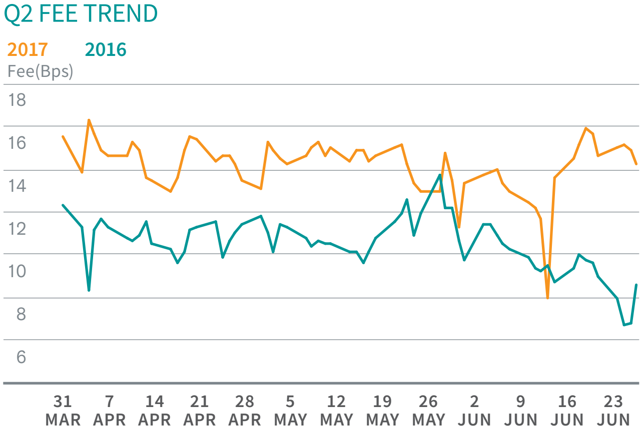
Average Balances
$736B ▲ 13%

Weighted Average Fee
0.12% ▲ 35%

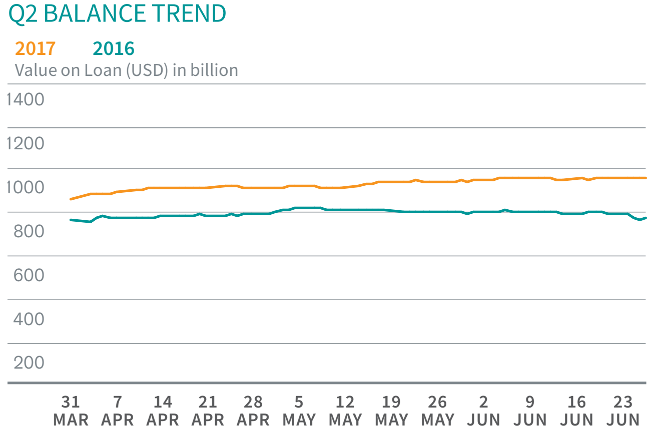
Average Inventory
$2T ▼ 1%

Utilisation
29.5% ▲ 14%

Q2 FEE TREND



Q2 BALANCE TREND



OVERVIEW

North American bond revenues grew by nearly $70m yoy in Q2	Inventory levels were flat over the quarter	Borrowers most willing to pay for European bonds	Reinvestment revenues continued to climb higher

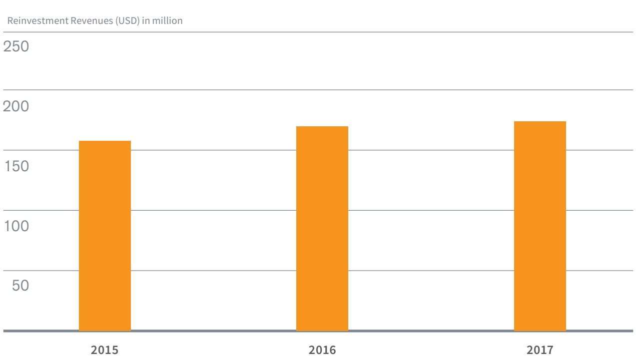
AVERAGE VALUE ON LOAN

Country Details	Quarterly Secutiries 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	287.8	30%	474.1	20%	0.10%	65%	1,586.2	2%	29.9	18%
Asia	1.2	-41%	5.7	-30%	0.05%	8%	45.2	-4%	12.5	-27%
Europe	99.7	15%	257.2	3%	0.15%	17%	866.2	-5%	29.7	9%

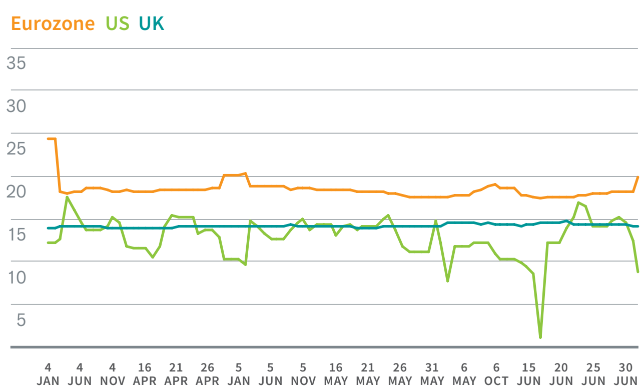
TOP 10 REVENUE GENERATING BONDS

Instrument Name	ISIN	Issuer	Currency	Revenue Generated ($)
United States Treasury (2.25% 15-Feb-2027)	US912828V988	USA	USD	3,529,011.00
United States Treasury (2.875% 15-Aug-2045)	US912810RN00	USA	USD	3,319,330.50
United States Treasury (2.375% 15-May-2027)	US912828X885	USA	USD	3,196,822.25
United States Treasury (0.75% 31-Jul-2018)	US912828S687	USA	USD	2,890,657.50
Germany, Federal Republic Of (Government) (3.25% 04-Jul-2042)	DE0001135432	Germany	Euro	2,682,389.75
United States Treasury (3% 15-May-2045)	US912810RM27	USA	USD	2,671,328.25
Germany, Federal Republic Of (Government) (0.5% 15-Feb-2026)	DE0001102390	Germany	Euro	2,658,341.00
United States Treasury (0.75% 15-Jul-2019)	US912828S430	USA	USD	2,363,640.50
United States Treasury (2.875% 15-Nov-2046)	US912810RU43	USA	USD	2,277,129.75
United States Treasury (0.75% 15-Aug-2019)	US9128282B53	USA	USD	2,191,933.00

SECOND QUARTER REINVESTMENT REVENUES



SOVEREIGN BOND FEES

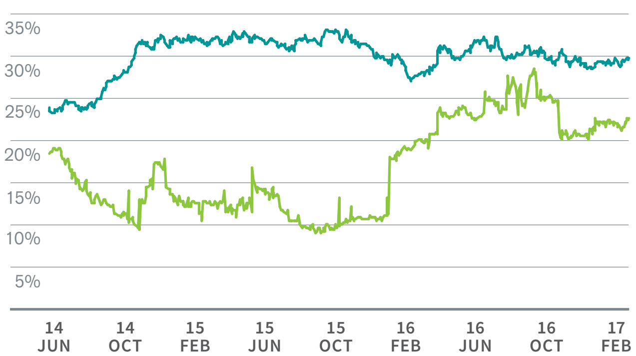


Time for term

Balance sheet regulations have pushed a growing number of market participants to "term out" a greater portion of their securities lending transactions for longer periods of time which offers an opportunity for lenders who can facilitate this trade.

Lending out government bonds has been one of the few industry bright spots of the last 12 months. While the rest of the securities lending industry has suffered from a general lack of demand and weak pricing power, government bonds have enjoyed a strong 20% increase in revenue over the first half of the year. This bumper revenue haul is largely driven by two factors, derivatives clearing rules which are forcing financial market participants to source ever growing amounts of high quality collateral to post to central counterparties, and increasingly stringent balance sheet regulations which are forcing banks to lock in funding for even longer periods of time.

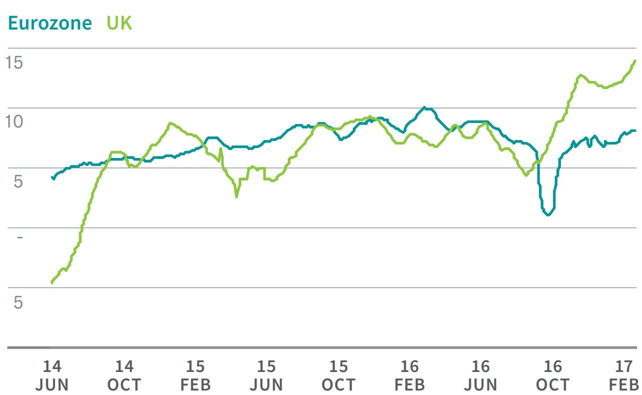
PROPORTION OF GOVERMENT BOND TERM LOANS



The latter of these two factors has not only increased the demand for high quality government bonds, it has also led to market participants lending out an increasingly large proportion of the asset class through term loans. Terming out government bonds has been especially popular since the Liquidity Coverage Ratio (LCR) framework set out by the Basel III rules came into effect in 2015. The regulation looks to ensure that banks hold sufficient amounts of high quality liquid assets to meet expected outflows for specific periods of time. Government bonds, which have the lowest LCR weighting, have registered a material increase in the proportion of the asset class trading term over the last few years. This increase means that 36% of all government bonds now out on loan are lent through term transactions versus the 22% registered 10 years ago, before Basel III first came to light.

Demand for term has been a global trend as the three main most liquid government bond types, UK gilts, US treasuries and bonds issued by ECB member states, have all registered material increases in the proportion of their securities lent on a term basis. US treasuries are currently the most likely to trade term as fully 45% of the $470bn of treasuries now out on loan in the securities lending market are lent on a term basis.

TERM PREMIUM (BPS)



Length of term

Volumes paint only half the picture however, as our data indicates that investors have been terming out trades for increasingly longer periods of time over the last few years, a trend which is particularly prevalent in Europe. LCR implementation saw the value weighted length of term trades made out for bonds issued by ECB member states jump from 150 to 370 days while UK gilts term trades grew from 277 to 334 days. LCR implementation was a large driving force behind this trend as its initial implementation in 2015 heralded the biggest jump in the length of European term transactions.

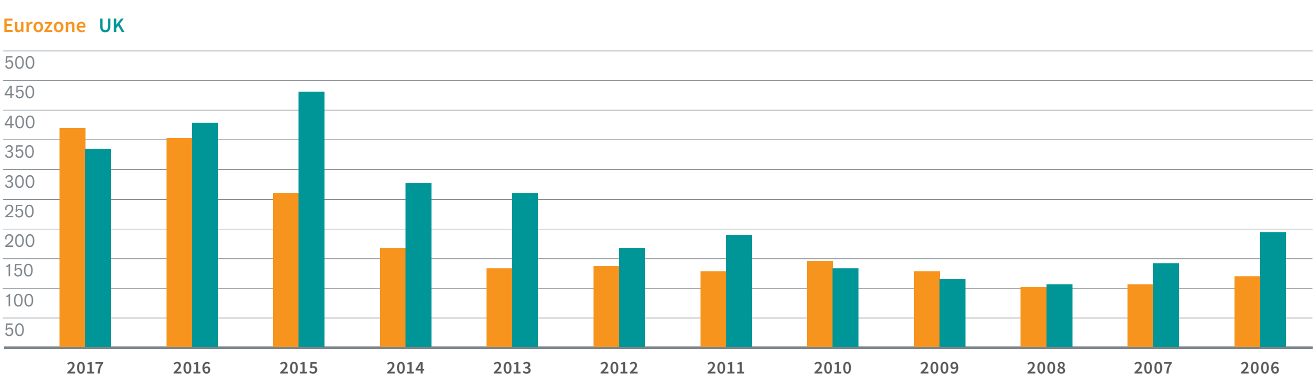
The US market was the one exception to the rule as value weighted length of term treasury trades has remained roughly flat over the last five years around the 90 day mark.

Fee premium

On top of pledging to borrow term trades for increasingly long periods of time, IHS Markit data indicates that European bond borrowers are willing to pay an increasingly large premium to borrow on a term basis since LCR's initial implementation back in January 2015. ECB member bonds and gilt term trades commanded a 5bps premium to open trades back in December of 2014; that number has since jumped to 8bps for ECB bonds and a massive 14bps for UK gilts.

While not every securities lending participant is able to facilitate term trading, the revenue stream for those that can is unlikely to dry up anytime soon given that the four year gradual LCR implementation still has some room to run until its full implementation in 2019. Further regulatory tailwinds may also be in the offing for term eligible lenders as the Net Stable Funding Ratio regulations seem poised to further drive the demand for secure supplies of high quality liquid assets over the coming years.

LENGTH OF GOVERNMENT BOND TERM TRANSACTIONS (DAYS)



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