European High Yield & Leveraged Loan Report

European Leveraged Finance

Q3: 2019

Association for Financial Markets in Europe
www.afme.eu

Prepared in partnership with

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Highlights

Issuance Highlights

"European leveraged finance issuance (leveraged loans and high yield bonds) totaled €66.4 billion in 3Q'19"

European leveraged finance issuance (leveraged loans and high yield bonds) increased to €66.4 billion in 3Q'19, a 1.7% increase from €65.3 billion in 2Q'19 and a 19.5% increase from €55.5 billion in 3Q'18. This quarterly increase was driven mainly by an increase in high yield bonds issuance in developed market Europe. The high yield bond share of leveraged finance market issuance increased to 45.7% in 3Q'19, up from 44.8% in 2Q'19 and up from 31.9% in 3Q'18.

Market and Economic Environment

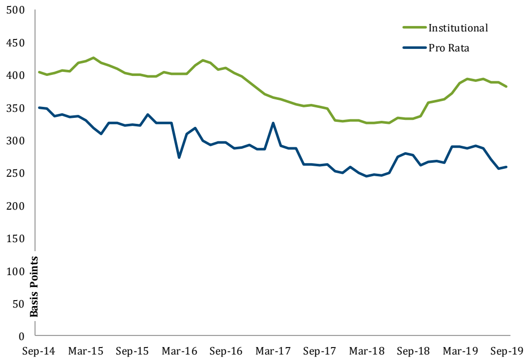
According to the October 2019 European Central Bank lending survey, credit standards eased slightly for loans to enterprises in 3Q'19. Competition (mainly from other banks) was the main factor contributing to an easing of credit standards for loans to enterprises. Across firm size, credit standards slightly eased for loans to small and medium-sized enterprises (SMEs) and remained broadly unchanged for loans to large firms in 3Q'19. Net demand for loans to enterprises remained broadly unchanged in 3Q19; net demand increased slightly for loans to SMEs but decreased for loans to large firms.

Credit standards for consumer credit loans continued to tighten in 3Q'19, mainly due to banks' risk tolerance and weakening in the easing pressure coming from the impact of competition. Net demand for consumer credit loans increased in 3Q'19.

Credit standards for housing loans eased slightly in 3Q'19 with competitive pressure and lower risk perceptions as the main drivers behind the easing. Banks reported a substantial net increase in demand for housing loans in 3Q'19, which remained above the historical average.

"Leveraged loan issuance totaled €36.0 billion on 52 deals in 3Q'19"

Leveraged Loan Spreads



Source: *Dealogic, AFME, SIFMA*

Issuance

Issuance: Leveraged Loans

Leveraged loan issuance, including first lien, second lien, and mezzanine financing, totaled €36.0 billion on 52 deals in the third quarter of 2019, unchanged in volume from €36.0 billion on 69 deals in 2Q'19, but a 4.7% decrease from €37.8 billion on 66 deals in 3Q'18.

All but four of the leveraged loans issued in 3Q'19 were 1st lien loans (€35.5 billion or 98.4% of total). Three 2nd lien loan (€0.4 billion) and one mezzanine loan (€0.2 billion) were financed in 3Q'19.

Pricing spreads for institutional loans tightened by 11 basis points (bps) q-o-q but widened by 50 bps y-o-y. Spreads for pro rata loans tightened by 28 bps q-o-q and by 18 bps y-o-y.

In 3Q'19, €1.1 billion of amend-and-extend ("A&E") loans were financed, down 68.0% from €3.3 billion in 2Q'19 and by 19.2% from €1.3 billion in 3Q'18. There were €2.8 billion in loans amended to reduce pricing ("A&R") in the third quarter of 2019, up from €0.8 billion in 2Q'19 and from €0.3 billion in 3Q'18.

The top three sectors accounted for almost half of leveraged loan issuance in 3Q'19; the leading sector was consumer products (€5.8 billion or 16.1% or total), followed by professional services (€5.3 billion, 14.7%), and construction/buildings (€5.0 billion, 13.7%), with the balance split between 13 other sectors.

Nearly half (43.9%) of deals financed in the third quarter of 2019 were issued for refinancing and/or repayment of debt, down from 71.2% in 2Q'19 but up from 23.5% in 3Q'18. Refinancing and/or repayment of debt were the largest use of proceeds in 3Q'19 with €15.8 billion or 43.9% of the total, followed by leveraged buyouts with €12.0 billion or 33.2%, and acquisitions with €4.0 billion or 11.8% of the total.

"Primary high yield issuance totaled €30.3 billion on 53 deals in 3Q'19"

Issuance: High Yield Bonds

Primary high yield issuance totaled €30.3 billion on 53 deals in 3Q'19, a 3.8% increase from €29.2 billion on 71 deals in 2Q'19 and a 71.2% increase from €17.7 billion on 46 deals in 3Q'18. In developed market Europe, €27.3 billion of high yield bonds were issued in 3Q'19, up 4.4% from €26.2 billion in 2Q'19 and up 56.9% from €17.4 billion in 3Q'18. In emerging market Europe €3.0 billion in high yield bonds were issued in 3Q'19, down 1.9% from €3.1 billion in 2Q'18 but up tenfold from €0.3 billion in 3Q'18.

In the third quarter of 2019, average deal size in developed market Europe increased by 39.2% to €607.1 million from €436.0 million in 2Q'19 and by 56.9% from €386.9 million in 3Q'18. Average deal size in emerging market Europe was €374.3 million in 3Q'19, up 34.9% from €277.5 million in 2Q'19 and up 24.8% from €300.0 million in 3Q'18.

The leading use of proceeds for high yield bonds issuance in 3Q'19 were general corporate purposes with €11.6 billion, which was down 23.5% from €15.2 billion in 2Q'19 but up 52.3% from €7.6 billion in 3Q'18. In developed market Europe, the leading use of proceeds for high yield issuance in 3Q'19 was general corporate purposes with €8.9 billion, followed by refinancing and/or repayment of debt with €8.2 billion and acquisitions with €4.6 billion. In emerging market Europe, €2.7 billion was issued for general corporate purposes in 3Q'19 and €0.3 billion was issued for other uses.

Three sectors accounted for over half (55.2%) of the total high yield issuance volume in 3Q'19 in developed market Europe: the telecommunications sector continued to lead issuance with €5.8 billion (21.0% of total), followed by finance with €5.0 billion (18.5% of total), and metal & steel with €4.3 billion (15.7% of total). In emerging market Europe the top three sectors were: oil & gas (€0.9 billion or 30.0% of total), followed by finance (€0.8 billion, 25.9%) and transportatin (€0.7 billion, 24.5%).

The proportion of USD-denominated issuance increased slightly to 30.9% of all issuance in 3Q'19, up from 28.6% in 2Q'19 and up from 20.3% in 3Q'18. USD-denominated issuance in developed market Europe increased to €7.2 billion, or 26.2% of issuance, up 11.3% from €6.4 billion (24.6% of total) in 2Q'19 and up twofold from €3.6 billion (20.6% of total) in 3Q'18. Of high yield bonds issued in emerging market Europe, €2.2 billion (73.3% of total) was denominated in USD, up 15.0% from €1.9 billion (62.5% of total) in 2Q'19 and up from no USD-denominated issuance in 3Q'18.

Returns & Credit Quality

"U.S. Corporates Index led returns in 3Q'19 with 12.9% y-o-y"

Of the 20 analysed asset classes, 17 recorded positive year-over-year (y-o-y) returns in the third quarter of 2019. U.S. Corporates Index led y-o-y returns with an increase of 12.9% in 3Q'19, followed by U.S. Treasuries index with a 10.8% gain y-o-y and U.S. Municipal Index with an 8.7% gain y-o-y. The worst performing asset class was the U.S. HY Distressed Index with a loss of 24.4% y-o-y in 3Q'19, followed by Russel 2,000 Index with a 10.2% loss y-o-y, and MSCI EM Index with a 4.5% decrease y-o-y.

As of September 2019, S&P reported the trailing 12-month speculative-grade default rate at 2.1%, a decrease from 2.3% in June 2019 and unchanged from 2.1% in September 2018. Moody's reported the trailing 12-month speculative-grade default rate at 1.2% in September 2019, up slightly from 1.1% in June 2019 but down from 2.4% in September 2018.

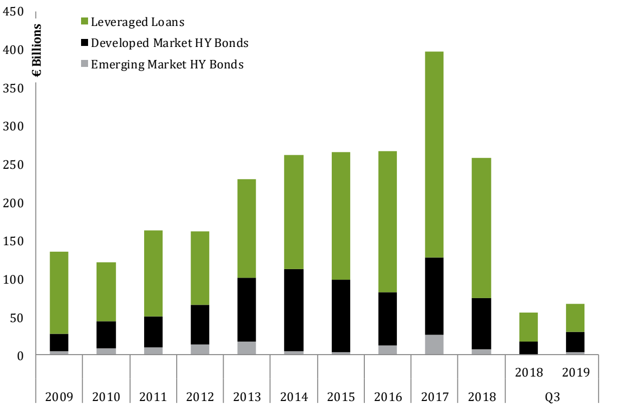
"Three European high yield bond issuers defaulted in 3Q'19"

Three bond-related defaults were reported in the third quarter of 2019, all in developed market Europe. Two firms defaulted due to filing banktrupcy and one due to missed interest payment.

According to Standard and Poor's, in 3Q'19 downgrades exceeded upgrades in developed market Europe (36 downgrades and 14 upgrades), a much worse ratio than 25 downgrades and 27 upgrades in 2Q'19 and worse than 17 downgrades and 19 upgrades in 3Q'18. In emerging market Europe, there were 2 upgrades and 2 downgrades by S&P in 3Q'19 compared to 1 upgrade and no downgrades in 2Q'19 and 2 upgrades and 7 downgrades in 3Q'18. Three sectors accounted for a third (33.3%) of all the rating actions in 3Q'19: telecommunications led the number of rating actions (5 upgrade, 2 downgrades), followed by consumer products (no upgrades, 6 downgrades), and oil and gas exploration and production (1 upgrade, 4 downgrades).

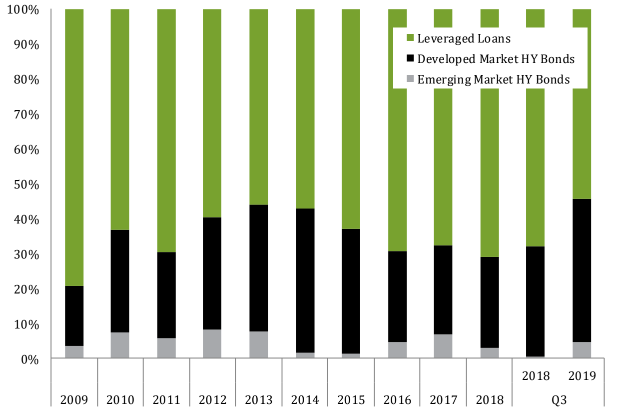
1 Leveraged Finance Overview

1.1 European Leveraged Issuance by Type



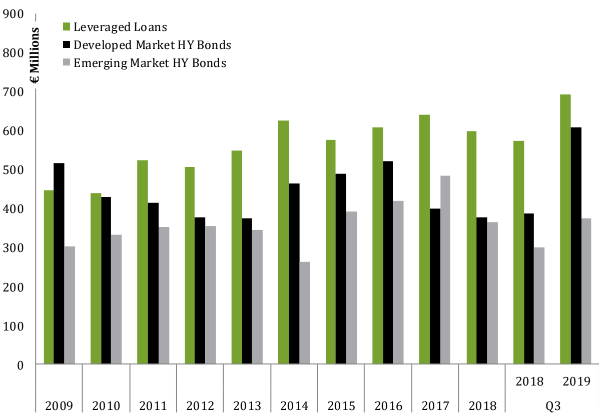
Source: *Dealogic*

1.2 European Leveraged Issuance Percentage



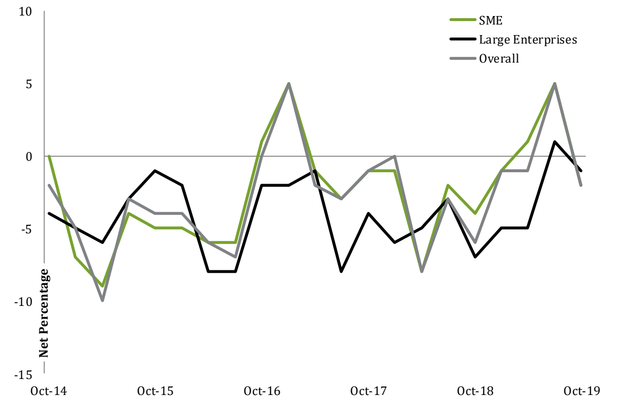
Source: *Dealogic*

1.3 European Leveraged Average Deal Size



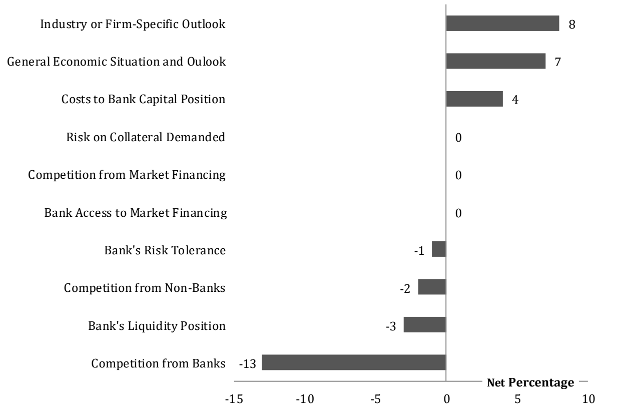
Source: *Dealogic*

1.4 Bank Credit Standards[1]



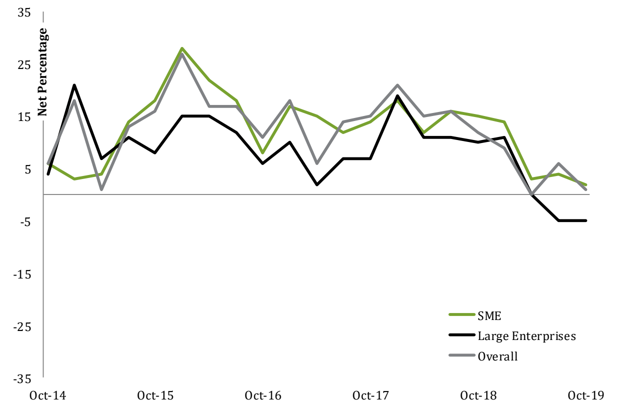
Source: *European Central Bank*

1.5 Factors Affecting Bank Credit Standards: October 2019[2]



Source: *European Central Bank*

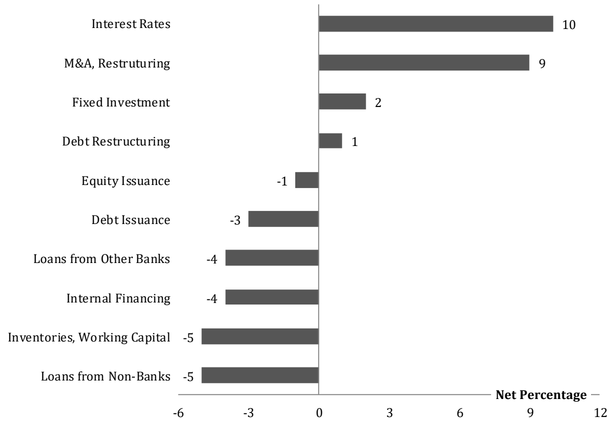
1.6 European Leveraged Issuance Percentage[3]



Source: *European Central Bank*

[1] A positive net percentage number signifies tightening bank credit; a negative net percentage number signifies easing credit.
[2] A positive net percentage signifies the factor contributed to tightening credit standards; a negative net percentage signifies the factor contributed to easing credit standards.
[3] A positive net percentage signifies increased demand; a negative net percentage signifies decreased demand.

1.7 Factors Affecting Loan Demand: October 2019[4]



Source: *European Central Bank*

1.8 Global Comparison – High Yield Issuance

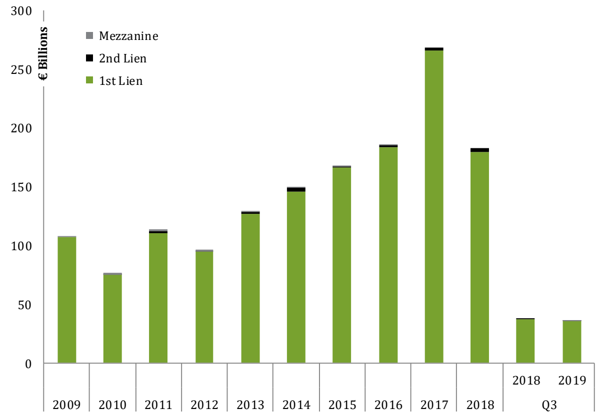
	2019			2018					2017					Prior Years		
€ Billions	Q1	Q2	Q3	Q1	Q2	Q3	Q4	Full Year	Q1	Q2	Q3	Q4	Full Year	2016	2015	2014
United States	48.0	50.3	46.9	38.4	32.1	34.9	10.4	115.8	58.5	62.7	51.2	48.0	220.4	192.0	187.6	164.4
Europe	17.1	29.2	30.3	24.9	25.4	17.7	6.9	74.9	35.3	34.5	19.4	38.6	127.9	82.1	97.8	112.4
Asia Pacific	29.1	26.3	20.7	18.3	12.7	8.2	11.3	50.5	20.2	23.2	21.7	11.5	76.6	27.1	25.2	27.1

Source: *Dealogic*

[4] A positive net percentage signifies a factor that contributed to higher demand; a negative net percentage signifies a factor that contributed to lower demand.

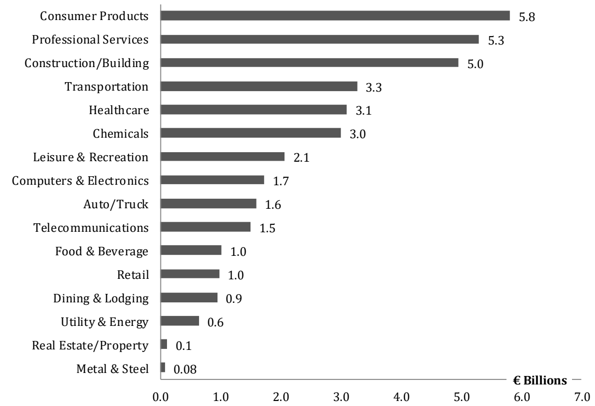
2 Issuance – Leveraged Loans

2.1 European Leveraged Loan Issuance By Type



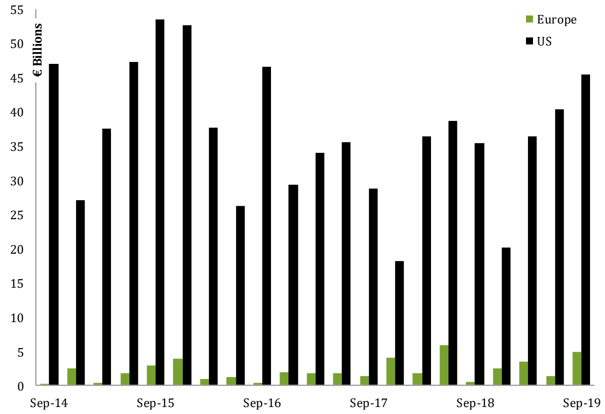
Source: *Dealogic*

2.2 European Leveraged Loan Issuance by Industry: 3Q 2019



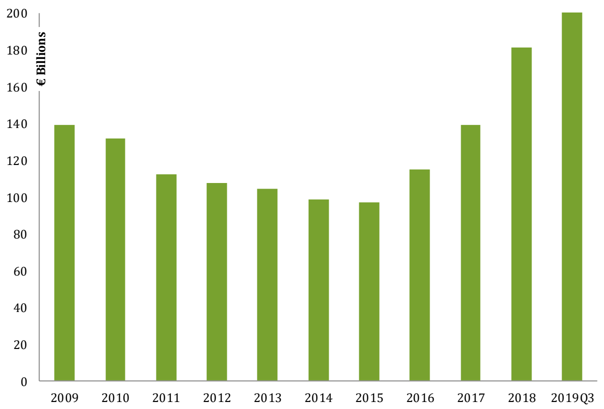
Source: *Dealogic*

2.3 Forward Pipeline of Leveraged Loan Market



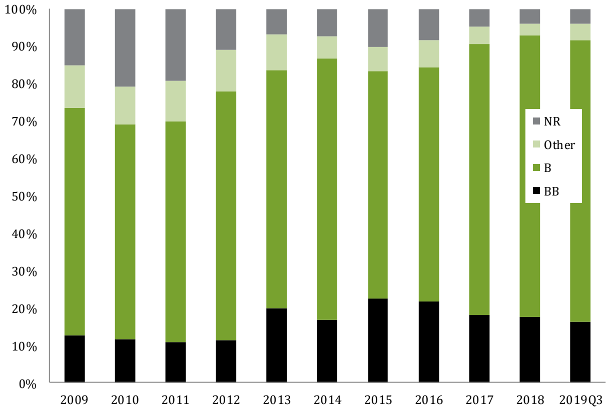
Source: *Standard & Poor's LCD*

2.4 ELLI Total Institutional Loans Outstanding



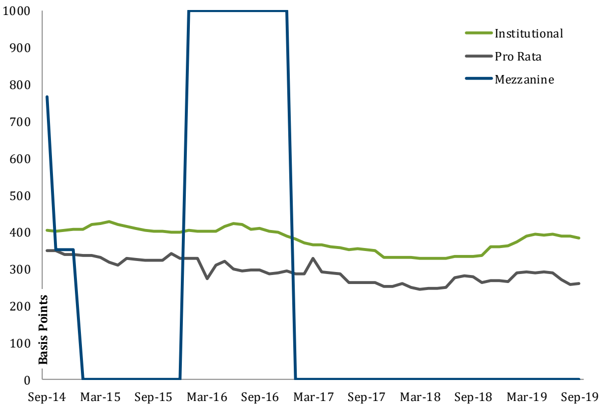
Source: *Standard & Poor's LCD*

2.5 ELLI Ratings Diversification



Source: *Standard & Poor's LCD*

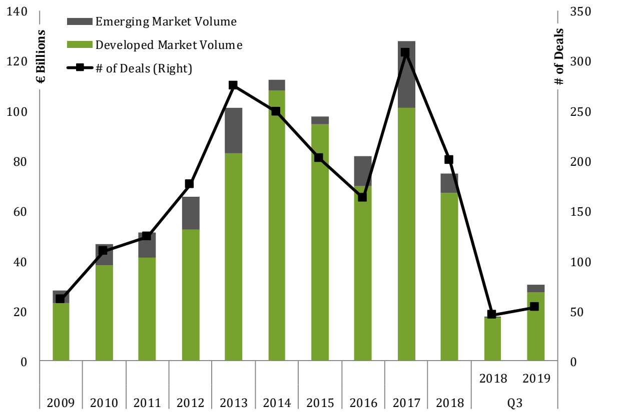
2.6 Institutional, Pro Rata and Mezzanine Spreads



Source: *Dealogic, AFME, SIFMA*

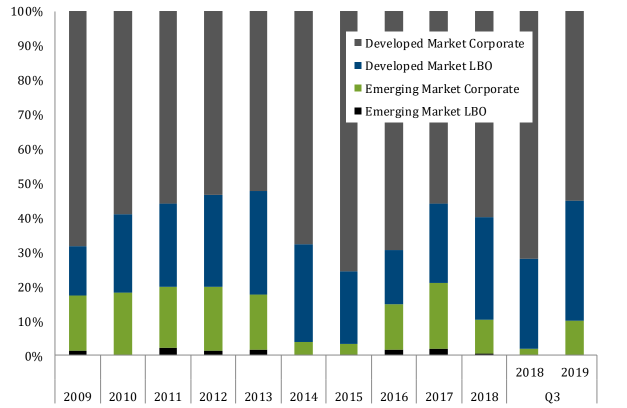
3 Issuance – High Yield Bonds Overview

3.1 European High Yield Issuance



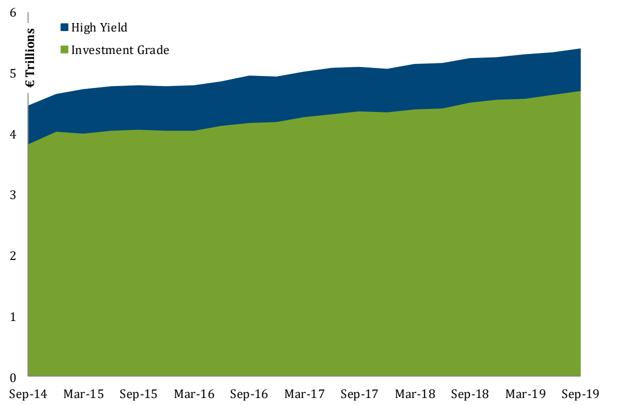
Source: *Dealogic*

3.2 European High Yield Issuance by Sponsor



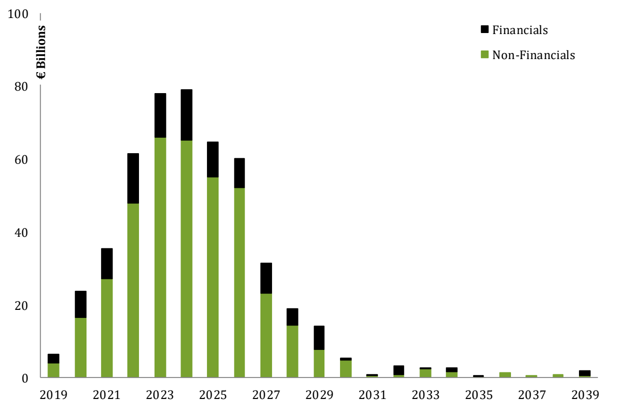
Source: *Dealogic*

3.3 European Corporate Bonds Outstanding (IG and HY only)



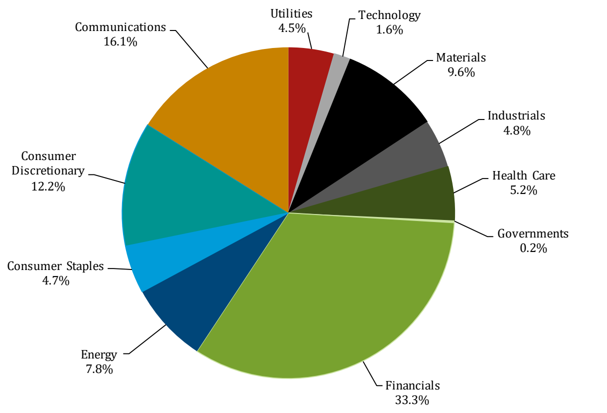
Source: *Bloomberg, AFME, SIFMA*

3.4 European Corporate Bonds HY Maturity Wall: 3Q 2019



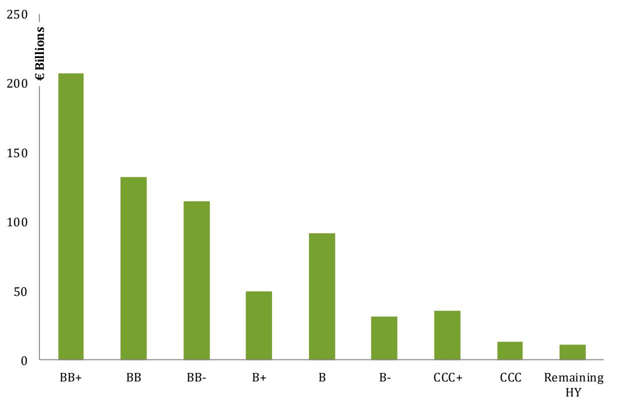
Source: *Bloomberg, AFME, SIFMA*

3.5 European Corporate HY Bonds Outstanding By Sector: 3Q 2019



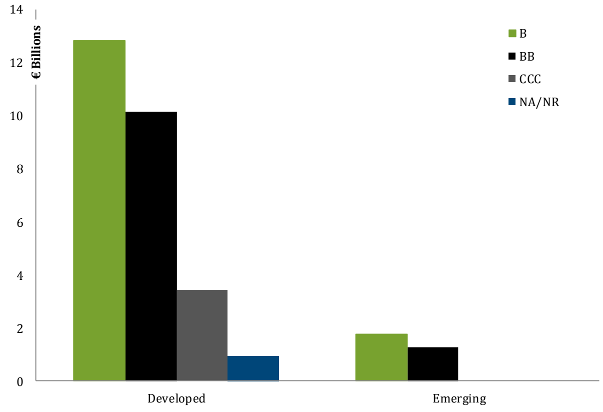
Source: *Bloomberg, AFME, SIFMA*

3.6 European Corporate HY Bonds Outstanding by Current Rating: 3Q 2019



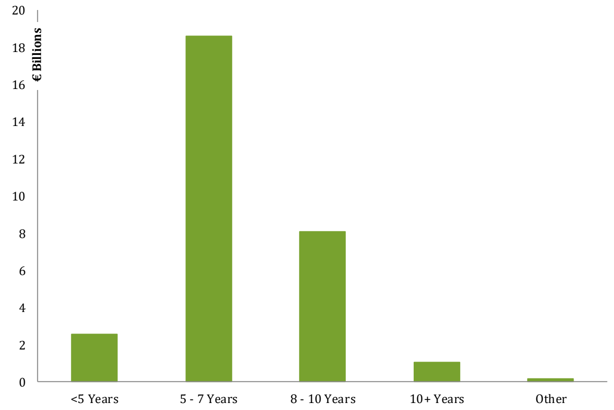
Source: *Bloomberg, AFME, SIFMA*

3.7 European Corporate Bond Issuance by Rating: 3Q 2019



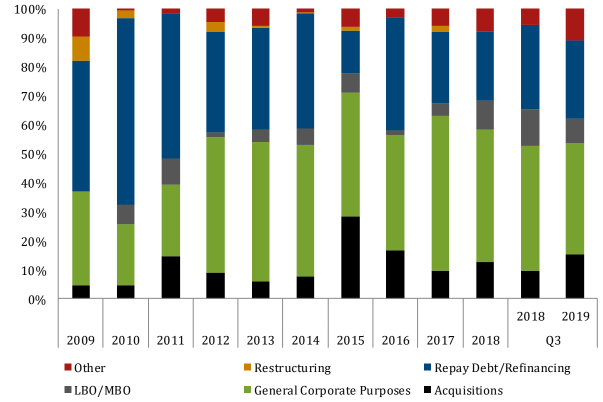
Source: *Dealogic, AFME, SIFMA*

3.8 European Corporate Bond Issuance by Tenor: 3Q 2019



Source: *Dealogic, AFME, SIFMA*

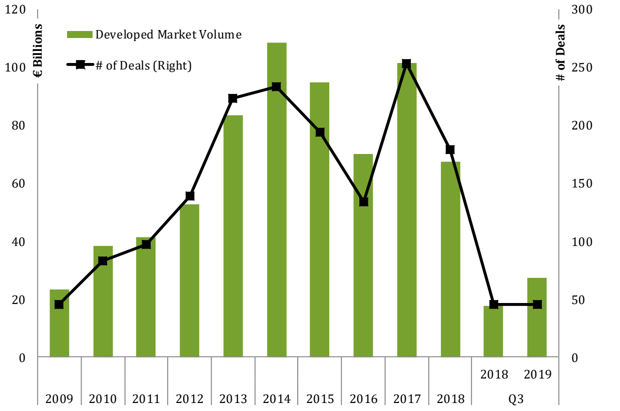
3.9 European HY Use of Proceeds



Source: *Dealogic, AFME, SIFMA*

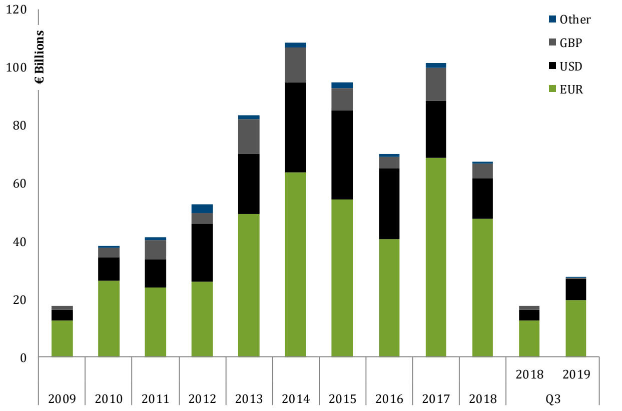
4 Issuance – European Developed Market High Yield Bonds

4.1 European Developed Market HY Bond Issuance



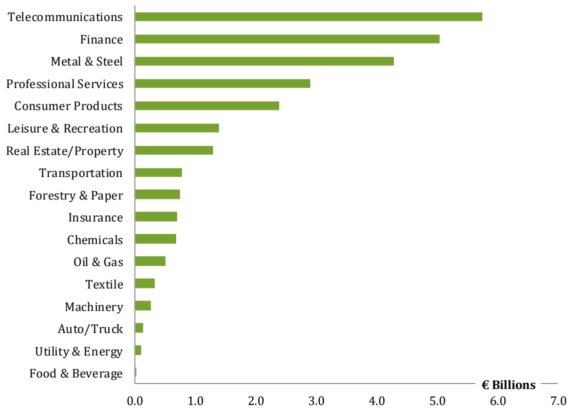
Source: *Dealogic*

4.2 European Developed Market HY Issuance by Currency



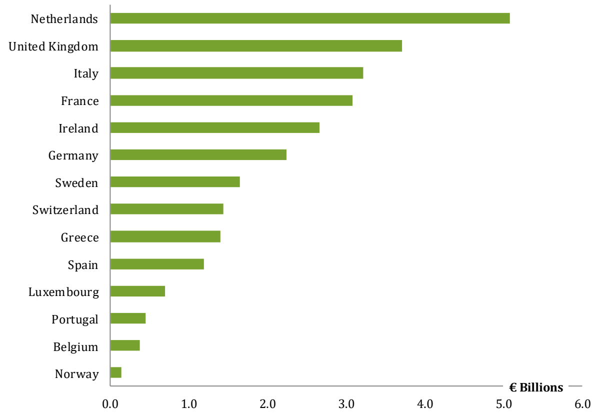
Source: *Dealogic*

4.3 European Developed Market HY Issuance by Industry: 3Q 2019



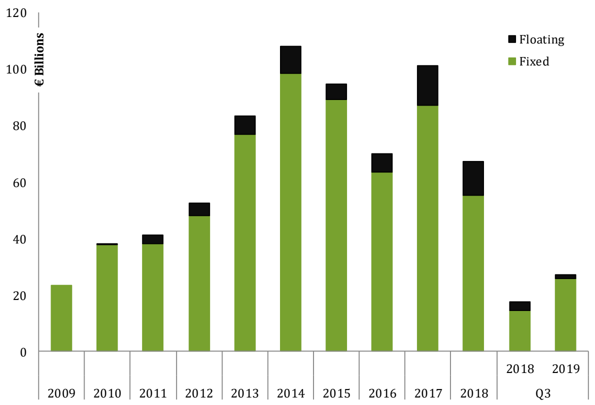
Source: *Dealogic*

4.4 European Developed Market HY Issuance by Country of Risk: 3Q 2019



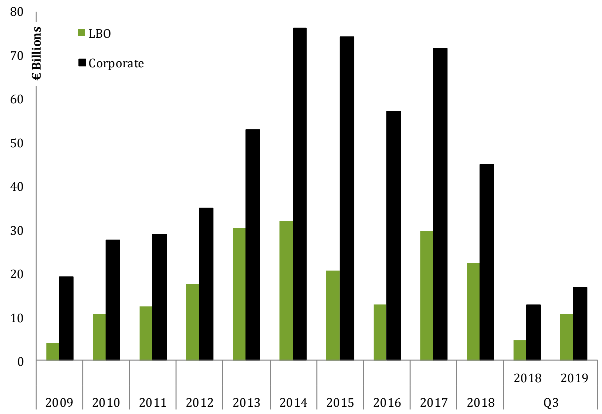
Source: *Dealogic*

4.5 European Developed Market HY Issuance, Fixed vs. Floating



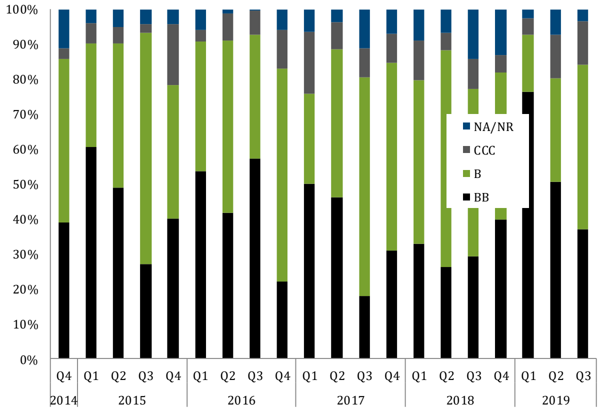
Source: *Dealogic*

4.6 European Developed Market HY Issuance, Sponsored vs. Corporate



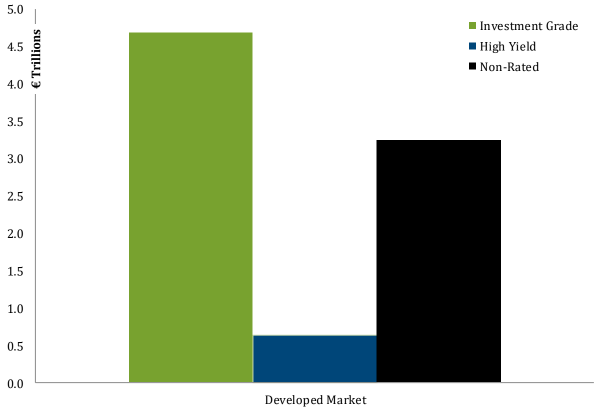
Source: *Dealogic*

4.7 European Developed Market HY Rating Distribution at Issuance



Source: *Dealogic, AFME, SIFMA*

4.8 European Developed Market Corporate Bonds Outstanding: 3Q 2019



Source: *Bloomberg, AFME, SIFMA*

4.9 European Developed Market HY Bond Issuance

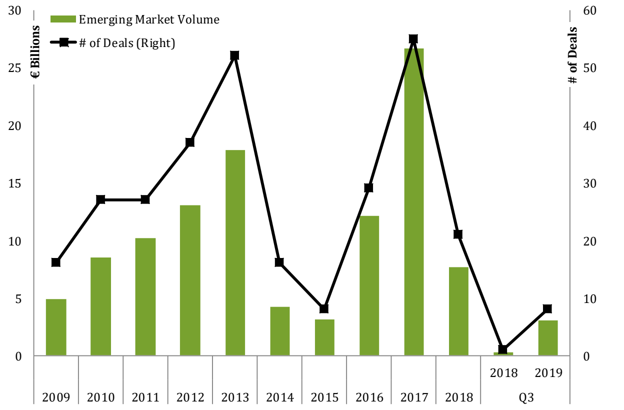
Issuer	Industry Group	Date	Currency	Amount (Millions)	Coupon	Moodys	S&P	Fitch
Monte dei Paschi	Finance	04/07/2019	EUR	400	4.00	Caa1	NR	B
National Bank of Greece	Finance	11/07/2019	EUR	320	8.25	Caa2	CCC	CCC-
House of Finance NV	Professional Services	12/07/2019	EUR	300	4.38	B1	B+	NR
Monte dei Paschi	Finance	16/07/2019	EUR	700	10.50	Caa2	NR	CCC+
Loxam SAS	Professional Services	17/07/2019	EUR	450	3.25	NR	BB-	NR
Loxam SAS*	Professional Services	17/07/2019	EUR	250	3.75	NR	BB-	NR
Loxam SAS*	Professional Services	17/07/2019	EUR	305	5.75	NR	B	NR
Galaxy Bidco Ltd	Insurance	17/07/2019	GBP	200	6.50	B2	B	NR
Galaxy Bidco Ltd*	Insurance	17/07/2019	EUR	150	3M EURIBOR +50	B2	B	NR
Galaxy Bidco Ltd*	Insurance	17/07/2019	GBP	330	9.25	Caa1	CCC+	NR
Victoria plc	Textile	19/07/2019	EUR	1,050	5.25	B1	BB-	BB
Trivium Packaging Finance BV	Metal & Steel	19/07/2019	USD	625	5.50	B2	B+	NR
Trivium Packaging Finance BV*	Metal & Steel	19/07/2019	EUR	700	3.75	B2	B+	NR
Trivium Packaging Finance BV*	Metal & Steel	19/07/2019	USD	355	8.50	Caa2	B-	NR
Trivium Packaging Finance BV*	Metal & Steel	19/07/2019	EUR	490	3M EURIBOR +375	B2	B+	NR
Cirsa Finance International SARL	Leisure & Recreation	23/07/2019	EUR	74	3M EURIBOR +362.5	B2	B	NR
Banco BPM SpA	Finance	23/07/2019	EUR	200	2.40	Ba2	NR	NR
Banca Popolare di Sondrio SCpA	Finance	23/07/2019	EUR	700	6.25	NR	NR	BB
Vivion Investments SARL	Real Estate/Property	25/07/2019	EUR	800	3.00	NR	BB+	NR
Intrum AB	Finance	25/07/2019	EUR	475	3.50	Ba2	BB+	BB
Walnut Bidco plc	Consumer Products	26/07/2019	EUR	335	6.75	B1	B+	B+
Walnut Bidco plc*	Consumer Products	26/07/2019	USD	100	9.13	B1	B+	B+
ContourGlobal Power Holdings SA	Utility & Energy	30/07/2019	EUR	800	4.13	NR	BB	BB
Ardagh Packaging Finance plc	Consumer Products	30/07/2019	USD	500	5.25	B3	B	NR
Ardagh Packaging Finance plc*	Consumer Products	30/07/2019	USD	440	4.13	Ba3	BB	NR
Ardagh Packaging Finance plc*	Consumer Products	30/07/2019	EUR	50	2.13	Ba3	BB	NR
House of Finance NV	Professional Services	31/07/2019	EUR	20	4.38	B1	B+	NR
Fileni Alimentare SpA	Food & Beverage	01/08/2019	EUR	275	3.50	NR	NR	NR
ASR Media & Sponsorship SpA	Professional Services	01/08/2019	EUR	505	5.13	NR	BB-	NR
F-Brasile SpA	Metal & Steel	02/08/2019	USD	410	7.38	B2	B	NR
Swissport Financing SARL	Transportation	09/08/2019	EUR	250	5.25	B2	B-	NR
Swissport Financing SARL*	Transportation	09/08/2019	EUR	250	9.00	Caa2	CCC	NR
Kistefos AS	Finance	19/08/2019	NOK	125	3M NIBOR +500	NR	NR	NR
Ocean Yield ASA	Transportation	26/08/2019	USD	1,000	3M LIBOR +650	NR	NR	NR
ThyssenKrupp AG	Metal & Steel	02/09/2019	EUR	750	1.88	Ba3	BB-	BB+
Smurfit Kappa Treasury Unlimited Co	Forestry & Paper	02/09/2019	EUR	500	1.50	Ba1	BB+	BB+
International Game Technology plc	Leisure & Recreation	09/09/2019	EUR	575	2.38	Ba2	BB+	NR
Matterhorn Telecom SA	Telecommunications	10/09/2019	EUR	250	3.13	B2	B+	NR
Matterhorn Telecom SA*	Telecommunications	10/09/2019	EUR	850	2.63	B2	B+	NR
Intrum AB	Finance	10/09/2019	EUR	1,000	3.00	Ba2	BB+	BB
Altice France SA	Telecommunications	13/09/2019	EUR	1,100	3.38	B2	B	NR
Altice France SA*	Telecommunications	13/09/2019	USD	550	5.50	B2	B	NR
Altice France SA*	Telecommunications	13/09/2019	EUR	300	2.50	B2	B	NR
Howden Group Ltd	Machinery	16/09/2019	USD	500	11.00	NR	NR	NR
OTE plc	Telecommunications	17/09/2019	EUR	500	0.875	NR	BB+	NR
Monte dei Paschi	Finance	17/09/2019	EUR	300	3.63	Caa1	NR	B
Permanent tsb Group Holdings plc	Finance	19/09/2019	EUR	325	2.13	Ba3	BB-	NR
Infrabuild Australia Pty Ltd	Metal & Steel	19/09/2019	USD	40	12.00	Ba3	NR	Bb
Fire (BC) SpA	Chemicals	19/09/2019	EUR	450	3M EURIBOR +475	B3	B	NR
Millennium BCP	Finance	20/09/2019	EUR	2,075	3.87	Ba3	B	BB-
Connect Finco SARL	Telecommunications	23/09/2019	USD	500	6.75	B1	B+	NR
Elis SA	Professional Services	24/09/2019	EUR	350	1.00	NR	BB+	Bbe
Elis SA*	Professional Services	24/09/2019	EUR	350	1.63	NR	BB+	Bbe
Banco BPM SpA	Finance	24/09/2019	EUR	400	4.25	B1	NR	NR
LHMC Finco 2 SARL	Leisure & Recreation	25/09/2019	EUR	150	7.25	NR	CCC+	NR
Aston Martin Capital Holdings Ltd	Auto/Truck	25/09/2019	USD	315	6.00	B3	CCC+	NR
Monitchem Holdco 3 SA	Chemicals	26/09/2019	EUR	175	5.25	B2	NR	NR
Monitchem Holdco 3 SA*	Chemicals	26/09/2019	EUR	150	3M EURIBOR +525	B2	NR	NR
Monitchem Holdco 3 SA*	Chemicals	26/09/2019	EUR	300	9.50	Caa2	NR	NR
Abanca Corporacion Bancaria SA	Finance	26/09/2019	EUR	500	4.63	Ba2	NR	BB+
Hellenic Petroleum Finance plc	Oil & Gas	27/09/2019	EUR	600	2.00	NR	NR	NR
DEMIRE Deutsche Mittelstand Real Estate AG	Real Estate/Property	30/09/2019	EUR		1.88	Ba2	BB+	NR

* denotes multiple tranches of the deal

Source: *Dealogic*

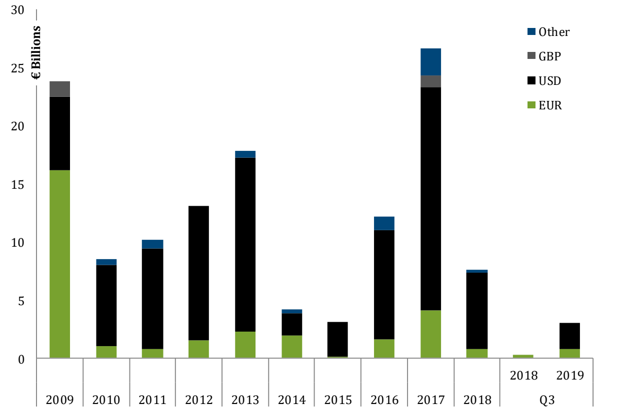
5 Issuance – European Emerging Market High Yield Bonds

5.1 European Emerging Market HY Bond Issuance



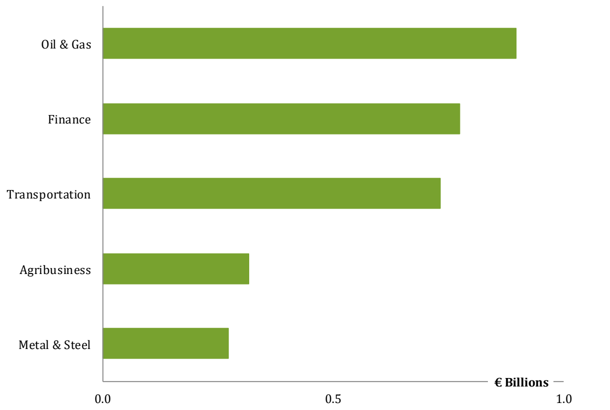
Source: *Dealogic*

5.2 European Emerging Market HY Bond Issuance by Currency



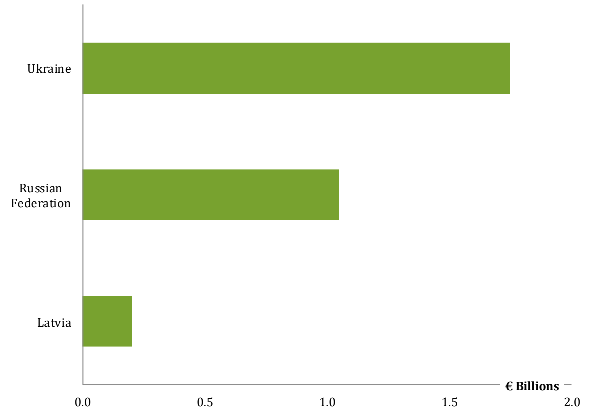
Source: *Dealogic*

5.3 European Emerging Market HY Issuance by Industry: 3Q 2019



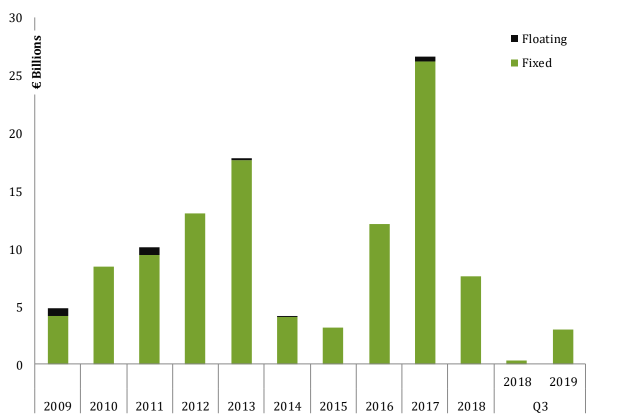
Source: *Dealogic*

5.4 European Emerging Market HY Issuance by Country of Risk: 3Q 2019



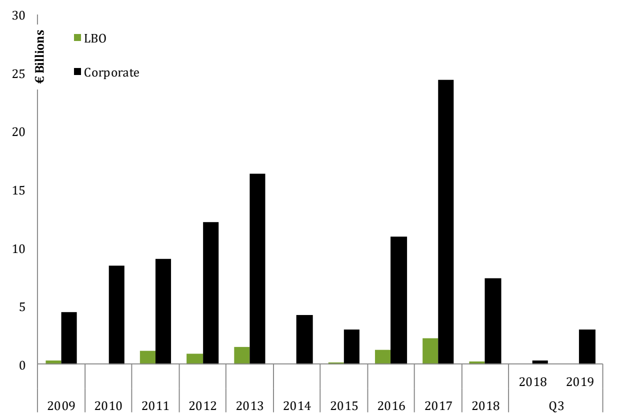
Source: *Dealogic*

5.5 European Emerging Market HY Issuance, Fixed vs. Floating



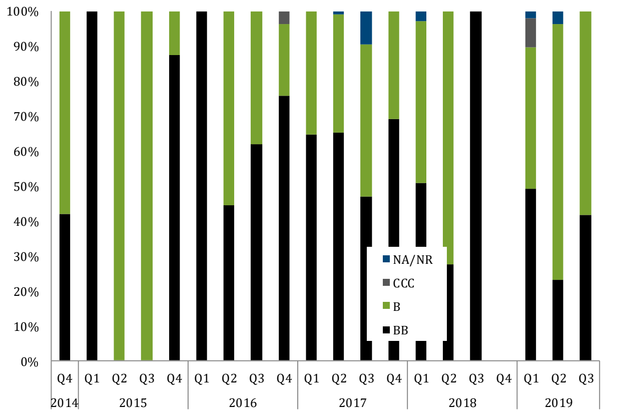
Source: *Dealogic*

5.6 European Emerging Market HY Issuance, Sponsored vs. Corporate



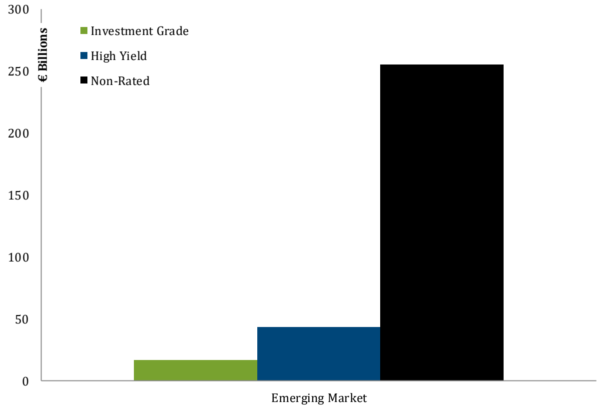
Source: *Dealogic*

5.7 European Emerging Market HY Rating Distribution at Issuance



Source: *Dealogic, AFME, SIFMA*

5.8 European Emerging Market Corporate Bonds Outstanding: 3Q 2019



Source: *Bloomberg, AFME, SIFMA*

5.9 European Emerging Market HY Bond Issuance

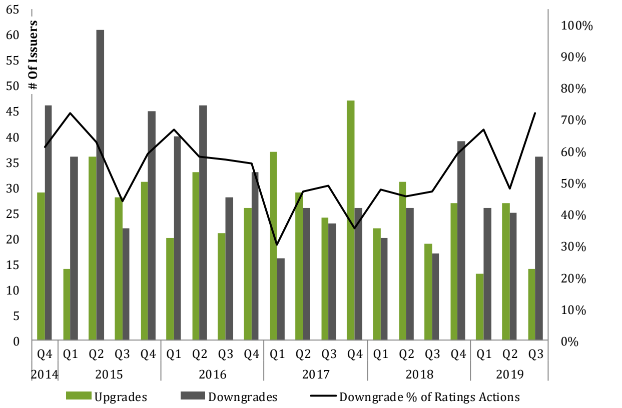
Issuer	Industry Group	Date	Currency	Amount (Millions)	Coupon	Moodys	S&P	Fitch
Ukraine Railways AT- Ukrzaliznytsia	Transportation	01/07/2019	USD	500	8.250	NR	NR	B
Naftogaz Ukraine NAK	Oil & Gas	12/07/2019	EUR	600	7.125	NR	NR	B
Naftogaz Ukraine NAK	Oil & Gas	12/07/2019	USD	335	7.375	NR	NR	B
Air Baltic Corp SIA	Transportation	23/07/2019	EUR	200	6.750	NR	BB-	NR
Ukraine Railways AT- Ukrzaliznytsia	Transportation	10/09/2019	USD	95	8.250	NR	NR	B
MHP Lux SA	Agribusiness	12/09/2019	USD	350	6.250	NR	B	B+
ChelPipe	Metal & Steel	13/09/2019	USD	300	4.500	Ba3	NR	BB-
GTLK Europe Capital dac	Finance	25/09/2019	USD	550	4.950	Ba2	NR	BB+
Sovcombank	Finance	30/09/2019	USD	300	8.000	NR	NR	BB

* denotes multiple tranches of the deal

Source: *Dealogic*

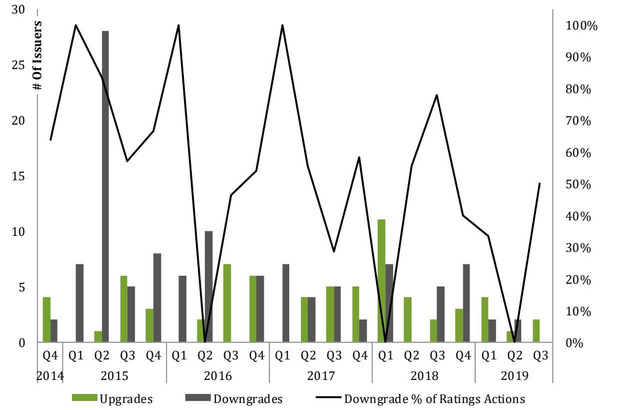
6 Credit Quality

6.1 Developed Europe Issuer Rating Actions[5]



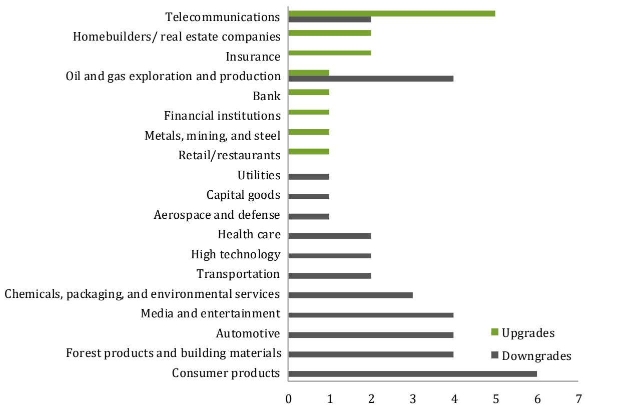
Source: *Standard and Poor's*

6.2 Emerging Europe Issuer Rating Actions[6]



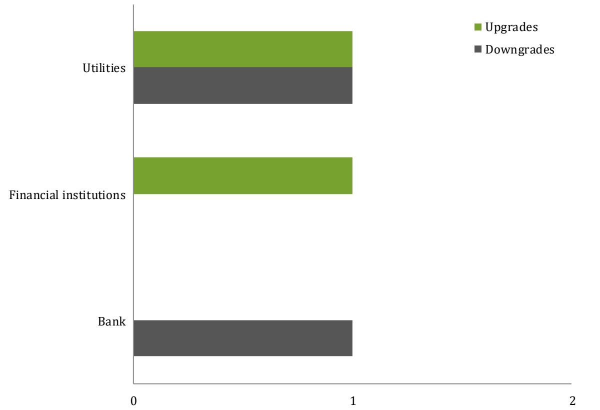
Source: *Standard & Poor's*

6.3 Developed European Industry Rating Actions by Number of Ratings: 3Q 2019



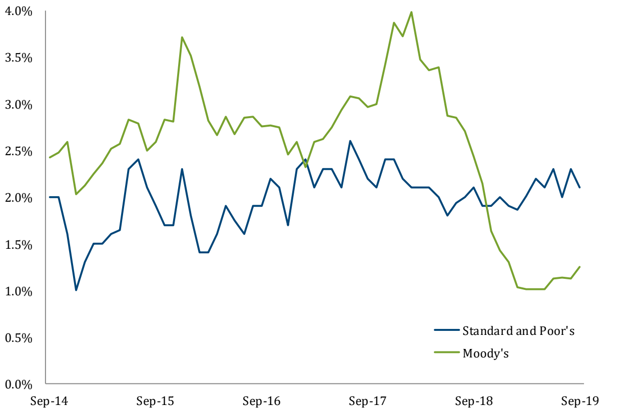
Source: *Standard & Poor's*

6.4 Emerging European Industry Rating Actions by Number of Ratings: 3Q 2019



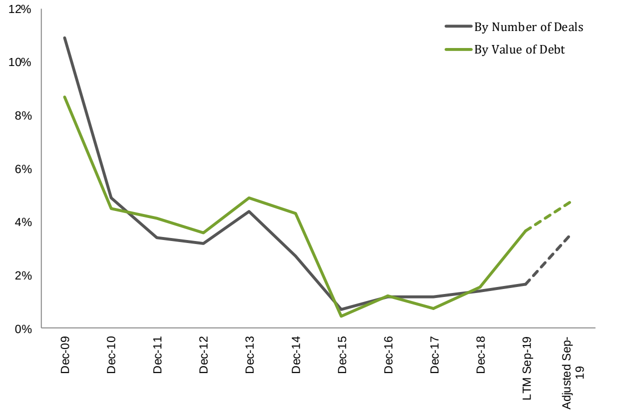
Source: *Standard & Poor's*

6.5 European High Yield Default Rates



Source: *Standard & Poor's, Moody's*

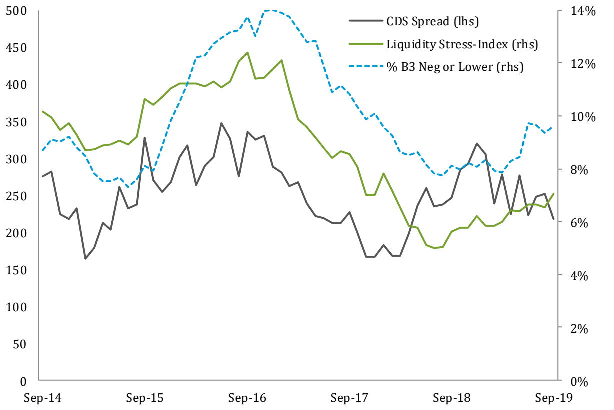
6.6 European Leveraged Loan Default Rates[7]



Source: *Fitch Leveraged Credit Database*

[5] Numbers include both corporate and sovereigns.
[6] Numbers include both corporate and sovereigns.
[7] Includes c* and cc* rated issuers as if those had already defaulted.

6.7 High-Yield bond CDS spreads vs. liquidity-stress index and HY bonds rated B3 neg and lower in Europe



Source: *Moody's*

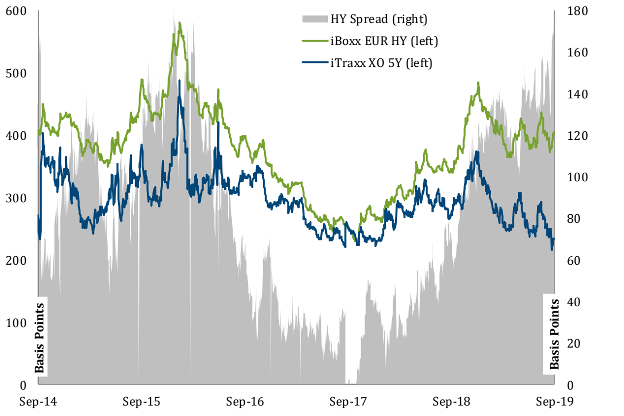
6.8 European Defaults

Issuer	Industry Group	Country	Date	Reported By	Reason
Weatherford International PLC	Oil and gas	Ireland	July 2019	S&P	Chapter 11
Galapagos S.A.	Manufacturing	Germany	July 2019	Moody's	Missed interest payment
Thomas Cook Group PLC	Media and entertainment	U.K.	September 2019	S&P, Moody's	Chapter 15

Source: *Standard & Poor's, Moody's*

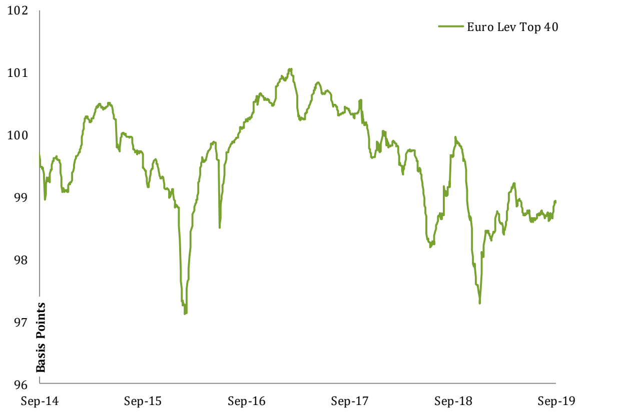
7 Relative Value and Total Return

7.1 Relative value: European HY Bonds, Cash vs. Synthetic



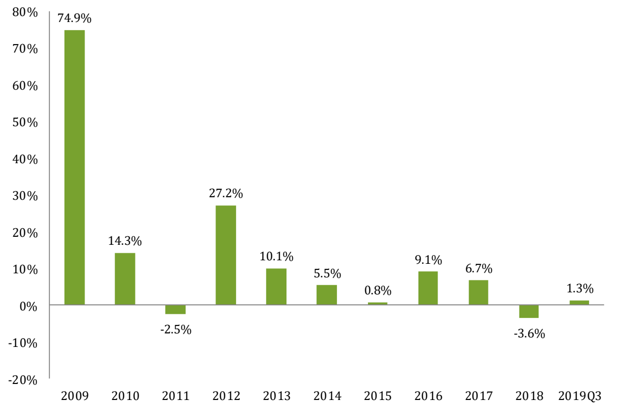
Source: *Thomson Reuters Eikon, Markit*

7.2 Relative value: European Leveraged Loans, Cash



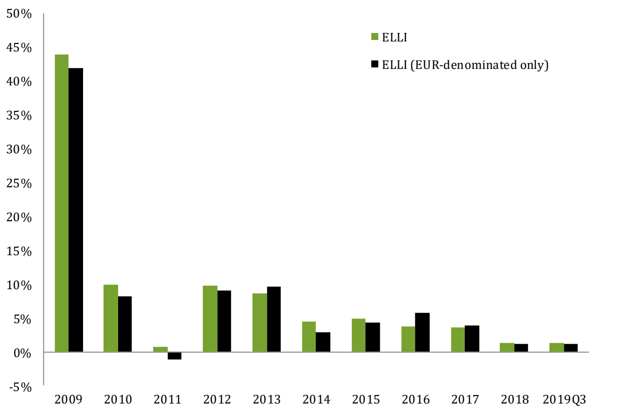
Source: *Thomson Reuters LPC*

7.3 European Leveraged Loan Total Return



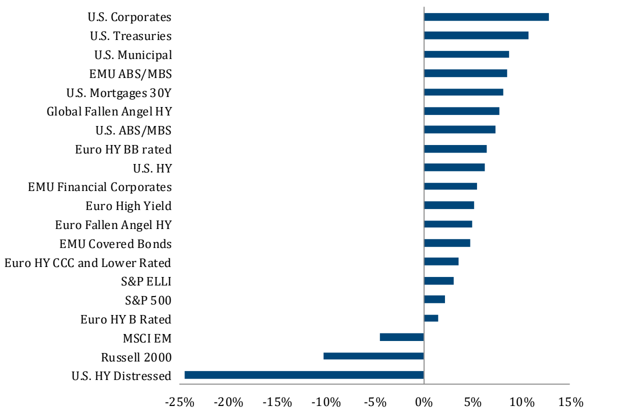
Source: *BAML*

7.4 European Leveraged Loan Total Return



Source: *Standard & Poor's LCD*

7.5 Asset Class Total Y-o-Y Return: 3Q 2019



Source: *BAML , Bloomberg*

Summary of the Methodologies Adopted for this Report

1. Leveraged Issuance – Overview

1.1. – 1.3. Leveraged Loans and High Yield Bonds

Leveraged loan data are sourced from Dealogic. Leveraged loan data are defined primarily as coming from a leveraged or highly leveraged European deal; loan tranches must have sub-investment grade ratings, or, if unrated, a margin spread minimum of 125 basis points over a benchmark (e.g., Euribor, LIBOR). Under these guidelines, sub-investment grade-rated loans with a margin spread of less than 125 basis points are included. Deals must be European and are inclusive of both developed and emerging market Europe as defined in high yield criteria in Section 3. Deals must also be marketed either in Europe or in the United States. Loans not EUR-denominated are converted to EUR as of credit date for purposes of aggregation. Aggregates include new money as well as non-new money deals.

Criteria for high yield bond transactions can be found in Section 3, 4, and 5.

1.4. – 1.7. Bank Lending Surveys

Data for loan demand and credit standards are sourced from the ECB's bank lending survey. Graph numbers are net percentages of reporting banks.

1.8. Global Comparison – High Yield Issuance

Data for global high yield issuance are sourced from Dealogic. Asian deals are inclusive of Japan and Australia. Totals include issues having a Dealogic "deal nationality/region" as well as "nationality/region of risk" within US, Europe or Asia Pacific. Sovereign, sub-sovereign, and supranational parent issuers are excluded from issuance, as well as ABS/MBS issuers.

2. Issuance – Leveraged Loans

2.1. – 2.2. Leveraged Loan Issuance

Leveraged loan issuance data are sourced primarily from Dealogic and Thomson Reuters LPC. For more details on qualifying criteria, please refer to section 1.

2.3. Forward Pipeline of Leveraged Loan Market

Forward leveraged loan pipeline data are sourced from S&P LCD.

2.4. S&P ELLI Total Institutional Loans Outstanding

Total institutional loan outstanding data are sourced from S&P LCD and are outstanding loans in the S&P ELLI index.

2.5. S&P ELLI Ratings Diversification

S&P ELLI ratings diversification are the percentages of currently outstanding loans in S&P's ELLI index that are rated accordingly. Data are provided by S&P LCD.

2.6. – 2.7. Loan Spreads

Loan spread data are sourced from Dealogic under our criteria for leveraged loans (see Section 1). For purposes of loan spread calculations, deals marketed in the US are excluded. Spreads are a weighted average of spread margin on new leveraged issuance on a rolling twelve months basis, and are typically benchmarked to LIBOR or EURIBOR. Institutional loan spread data are inclusive of 2nd lien; pro rata spreads include all revolvers and term loan A (Tla).

3. Issuance – High Yield Bonds Overview

High yield bond transactions are sourced primarily from Dealogic, with supplemental information sourced from Bloomberg. High yield transactions are defined as transactions with a Dealogic "effective" rating of equal or less than BB+, and may include unrated transactions based on issuer and desk notes. Split-junk rated transactions are generally excluded.

European issuance, inclusive of both emerging market Europe and developed market Europe, are defined as an issue having a Dealogic "deal nationality" as well as "nationality of risk" within Europe issued in the euro, foreign, and global markets; deals marketed locally are excluded. Sovereign, sub-sovereign, and supranational parent issuers are excluded from issuance, as well as ABS/MBS issuers.

Emerging market Europe and developed market European issuance are defined by nationality of risk, rather than nationality of deal, and although primarily sourced from Dealogic, are ultimately subject to AFME's discretion. Emerging and developed market issuances are mutually exclusive and will contain no overlap unless otherwise mentioned.

European emerging market bonds are further defined with having a minimum deal size of €75.0 million; deals on the same day from the same issuer are aggregated for the purpose of meeting this minimum. Deals are shown in EUR amount but include deals originated in other currencies and are converted to EUR at the exchange rate on the day of the deal. Russian ruble (RUB)-denominated issuance are excluded due to differences in terms and documentation; as of 4Q'10 this criteria no longer applies and may be included on a case by case basis.

3.2. European HY Issuance by Sponsor

Data for high yield issuance by sponsor are sourced from Dealogic. LBO deals are defined as all high yield transactions whose issuer parent is a public or private finance entity (i.e., a financial sponsor), regardless of use of proceeds.

3.3. – 3.6. European Corporate Bonds Outstanding

Data for European corporate outstanding are sourced from Bloomberg and AFME/SIFMA estimates. Criteria for European corporate bonds are: bonds must be placed in the domestic, euro, foreign and global markets with nationality of incorporation from a European developed or emerging market country as defined by AFME. Corporate bonds exclude non-Bloomberg verified securities, all structured notes, covered bonds, warrants, deposit notes, receipts, and certificates of deposit. All currencies are included and have been converted to EUR at time of pricing and/or issue.

High-yield ratings are sourced from Bloomberg's composite rating, which is an average of all available ratings from four rating agencies: Moody's, Standard and Poor's, Fitch Ratings, or DBRS. Split-rated securities may be included in high yield numbers due to this.

Corporate bonds outstanding include certain securities that may be considered corporate securitisations or structured finance securities; while all effort is made to exclude the latter, the former will be counted toward the corporate bonds outstanding total, and will subsequently overlap to some extent to AFME structured finance outstanding numbers. Excludes unrated securities.

3.7. European Corporate Bond Issuance by Rating

Data for HY issuance by rating are sourced from Dealogic, Bloomberg, and the three rating agencies. The composite rating is determined by the lowest rating assigned by either Moody's, Standard and Poor's, or Fitch Ratings.

3.8. European Corporate Bond Issuance by Tenor

Data for HY issuance by tenor are sourced from Dealogic. "Other" includes perpetuals.

3.9. European HY Issuance By Use of Proceeds

Data for HY issuance by use of proceeds are sourced from Dealogic and aggregated for the purposes of this calculation. Please refer to Section 3 for criteria on high yield issue inclusion.

4. Issuance – European Developed Market High Yield Bonds

4.1. – 4.7., 4.9 European Developed Market HY Bond Issuance

High yield bond issuance data are sourced from Dealogic. For further criteria on how high yield issuance are defined, please refer to section 3.

Developed European issuance are deals predominantly from western Europe and includes deals from Andorra, Austria, Belgium, Bulgaria, Cyprus, Switzerland, Germany, Denmark, Spain, Estonia, Finland, France, Faroe Islands, United Kingdom, Guernsey, Gibraltar, Greenland, Greece, Isle of Man, Ireland, Iceland, Italy, Jersey, Liechtenstein, Luxembourg, Monaco, Malta, Montenegro, Netherlands, Norway, Portugal, San Marino, and Sweden.

4.8. European Developed Market Corporate Bonds Outstanding

Data for corporate bonds outstanding are sourced from Bloomberg. Please refer to Section 3 for criteria and methodology.

5. Issuance – European Emerging Market High Yield Bonds

5.1. – 5.7., 5.9. European Emerging Market HY Bond Issuance

High yield bond issuance data are sourced from Dealogic. Criteria for all high yield issuance are found in section 3.

Emerging market European issuance deals are predominantly from Eastern Europe but will also additionally include Turkey, the Russian Federation, Kazakhstan, Turkmenistan, Uzbekistan, Tajikistan, Azerbaijan, and Kyrgyzstan. Certain sub-investment grade countries are not included in the emerging market total, including, among others, Iceland and Greece.

5.8. European Emerging Market Corporate Bonds Outstanding

Data for corporate bonds outstanding are sourced from Bloomberg. Please refer to Section 3 for criteria and methodology.

6. Credit Quality

6.1. – 6.2. European Issuer Rating Actions

European issuer upgrades and downgrades are sourced from S&P. The breakdown by emerging market and developed Europe are from AFME's definition of developed and emerging markets and would be, under S&P's guidelines, a combination of both European and EMEA rating actions. Multiple downgrades of a single issuer are counted separately. Rating actions are inclusive of both corporate (both credit and merger-related) as well as sovereign ratings.

6.3. – 6.4. European Issuer Rating Actions by # of Ratings

Rating actions are sourced from S&P. Breakdown by emerging market and developed Europe are from AFME's definition of developed and emerging markets and would be, under S&P's guidelines, a combination of both European and EMEA rating actions.

6.5. European High Yield Default Rate

European HY bond default rates are sourced from Standard and Poor's and Moody's, calculated on a trailing 12 month basis.

"Europe" for the S&P default rate is defined to include Austria, Belgium, Bulgaria, Channel Islands, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, Switzerland and the United Kingdom. Countries are subject to revision.

6.6. – 6.7. European Leveraged Loan Default Rate

European LL default rates are sourced from Fitch Leveraged Credit Database, calculated on a trailing 12 month basis.

6.8. Leveraged Loan Recovery Rates

European LL recovery rate are sourced from Fitch Leveraged Credit Database, calculated on a trailing 12 month basis. Recovery rates are based on median cash realised (cash or cash-pay debt received) recoveries for senior loans and on average cash realised recoveries (excluding any equity/warrants given in a debt exchange) for mezzanine loans.

6.9. HY CDS spreads vs. liquidity-stress index and HY bonds rated B3 negative and lower in Europe

The liquidity stress index is calculated by Moody's Investor Services as the percentage of speculative grade companies with the weakest liquidity profile in EMEA. Speculative grade liquidity is categorised in one of four ways: SGL 1: Very good liquidity. Most likely to meet obligations over the coming 12 months through internal resources without relying on external sources of committed financing. SGL 2: Good liquidity. Likely to meet obligations during the coming 12 months through internal resources but may rely on external sources of committed financing. The issuer's ability to access committed financing is highly likely, based on Moody's evaluation of near term covenant compliance. SGL3: Adequate liquidity. Expected to rely on external sources of committed financing. Based on Moody's evaluation of near term covenant compliance there is only a modest cushion, and the issuer may require covenant relief in order to maintain orderly access to funding lines. SGL4: Weak liquidity. Relies on external sources of financing and the availability of that financing is, in Moody's opinion, highly uncertain.
The percentage of bonds rated B3 negative or lower is sourced from Moody's

6.10. European Defaults

Defaults reported by either Moody's or Standard and Poor's in the European bond markets and loan markets, when available.

7. Cash and Synthetic

7.1. Loans and Bonds, Cash and Synthetic

Data are sourced from Markit and Thomson Reuters LPC. High yield bond cash and synthetic spreads from Markit; European leveraged loan cash bid prices from Thomson Reuters LPC, and European leveraged loans synthetic prices from Markit.

7.2. European HY Bond Total Return

European HY bond total return data are sourced from the Bank of America-Merrill Lynch's Euro High Yield Index (HE00). The index tracks the performance of EUR-denominated below-investment-grade corporate debt publicly issued in the euro domestic or Eurobond markets. Qualifying securities must have a below-investment-grade rating and an investment-grade rated country of risk. Qualifying securities must have at least one year remaining term to maturity, fixed coupon schedule and minimum amount outstanding of €100 million. Original issue zero coupon bonds, "global securities" (debt issued simultaneously in the Eurobond and euro domestic markets), 144a securities and pay-in-kind securities, including toggle notes, qualify for inclusion in the index. Callable perpetual securities qualify provided they are at least one year from the first call date. Fixed-to-floating rate securities also qualify provided they are callable within the fixed rate period and are at least one year from the last call prior to the date the bond transitions from a fixed to a floating rate security. Defaulted, warrant-bearing and euro legacy currency securities are excluded from the index.

7.3. European Leveraged Loan Total Return

Total return data are provided by S&P LCD and are total returns from S&P's ELLI index, both ELLI and EUR-denominated ELLI. Total returns for ELLI EUR-denominated data are unavailable for 2003 and 2004.

7.4. Asset Class Total Return (Cash Basis)

Total returns are sourced from respective index owners and Bank of America-Merrill Lynch's indice

Annex

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