European High Yield & Leveraged Loan Report

European Leveraged Finance

Q3: 2019
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European leveraged finance issuance (leveraged loans and high yield bonds) totaled €66.4 billion in 3Q’19.

**Highlights**

**Issuance Highlights**

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”

**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.
“U.S. Corporates Index led returns in 3Q’19 with 12.9% y-o-y”

“Three European high yield bond issuers defaulted in 3Q’19”

Highlights and Market Environment

Returns & Credit Quality

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 bond-related defaults were reported in the third quarter of 2019, all in developed market Europe. Two firms defaulted due to filing bankruptcy 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

1.2 European Leveraged Issuance Percentage

1.3 European Leveraged Average Deal Size

1.4 Bank Credit Standards

1.5 Factors Affecting Bank Credit Standards: October 2019

1.6 European Leveraged Issuance Percentage

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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

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

1.8 Global Comparison – High Yield Issuance

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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

2.2 European Leveraged Loan Issuance by Industry:

3Q 2019

Source: Dealogic

2.3 Forward Pipeline of Leveraged Loan Market

2.4 ELLI Total Institutional Loans Outstanding

Source: Standard & Poor's LCD

2.5 ELLI Ratings Diversification

2.6 Institutional, Pro Rata and Mezzanine Spreads

Source: Dealogic, AFME, SIFMA
3.1 European High Yield Issuance

3.2 European High Yield Issuance by Sponsor

3.3 European Corporate Bonds Outstanding (IG and HY only)

3.4 European Corporate Bonds HY Maturity Wall: 3Q 2019

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

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

3.8 European Corporate Bond Issuance by Tenor: 3Q 2019

3.9 European HY Use of Proceeds

Source: Dealogic, AFME, SIFMA
4.1 European Developed Market HY Bond Issuance

4.2 European Developed Market HY Issuance by Currency

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

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

4.5 European Developed Market HY Issuance, Fixed vs. Floating

4.6 European Developed Market HY Issuance, Sponsored vs. Corporate
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

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<td>Ocean Yield ASA</td>
<td>Transportation</td>
<td>26/08/2019</td>
<td>USD</td>
<td>1,000</td>
<td>3M LIBOR +650 BP</td>
<td>NR</td>
<td>NR</td>
<td>NR</td>
</tr>
<tr>
<td>ThysunKrupp AG</td>
<td>Metal &amp; Steel</td>
<td>02/09/2019</td>
<td>EUR</td>
<td>750</td>
<td>1.88</td>
<td>Ba3</td>
<td>BB-</td>
<td>BB+</td>
</tr>
<tr>
<td>Smurfit Kappa Treasury Unlimited Co</td>
<td>Forestry &amp; Paper</td>
<td>02/09/2019</td>
<td>EUR</td>
<td>500</td>
<td>1.50</td>
<td>Ba1</td>
<td>BB+</td>
<td>BB+</td>
</tr>
<tr>
<td>International Game Technology plc</td>
<td>Leisure &amp; Recreation</td>
<td>09/09/2019</td>
<td>EUR</td>
<td>575</td>
<td>2.58</td>
<td>Ba2</td>
<td>BB+</td>
<td>NR</td>
</tr>
<tr>
<td>Matterhorn Telecom SA*</td>
<td>Telecommunications</td>
<td>10/09/2019</td>
<td>EUR</td>
<td>850</td>
<td>3.61</td>
<td>B+</td>
<td>NR</td>
<td>NR</td>
</tr>
<tr>
<td>Intrum AB</td>
<td>Finance</td>
<td>10/09/2019</td>
<td>EUR</td>
<td>1,000</td>
<td>3.00</td>
<td>Ba2</td>
<td>BB+</td>
<td>BB</td>
</tr>
<tr>
<td>Altice France SA</td>
<td>Telecommunications</td>
<td>13/09/2019</td>
<td>EUR</td>
<td>1,100</td>
<td>3.38</td>
<td>B2</td>
<td>B</td>
<td>NR</td>
</tr>
<tr>
<td>Altice France SA**</td>
<td>Telecommunications</td>
<td>13/09/2019</td>
<td>EUR</td>
<td>300</td>
<td>2.50</td>
<td>B2</td>
<td>B</td>
<td>NR</td>
</tr>
<tr>
<td>Howden Group Ltd</td>
<td>Machinery</td>
<td>16/09/2019</td>
<td>USD</td>
<td>500</td>
<td>11.00</td>
<td>NR</td>
<td>NR</td>
<td>NR</td>
</tr>
<tr>
<td>OTE plc</td>
<td>Telecommunications</td>
<td>17/09/2019</td>
<td>EUR</td>
<td>500</td>
<td>0.87</td>
<td>NR</td>
<td>NR</td>
<td>NR</td>
</tr>
<tr>
<td>Monte dei Paschi</td>
<td>Finance</td>
<td>17/09/2019</td>
<td>EUR</td>
<td>300</td>
<td>3.61</td>
<td>Caa1</td>
<td>NR</td>
<td>B</td>
</tr>
<tr>
<td>Permanent tob Group Holdings plc</td>
<td>Finance</td>
<td>19/09/2019</td>
<td>EUR</td>
<td>325</td>
<td>2.13</td>
<td>Ba3</td>
<td>BB-</td>
<td>NR</td>
</tr>
<tr>
<td>Infrastruktur Australia Pty Ltd</td>
<td>Metal &amp; Steel</td>
<td>19/09/2019</td>
<td>USD</td>
<td>40</td>
<td>12.00</td>
<td>Ba3</td>
<td>NR</td>
<td>B-</td>
</tr>
<tr>
<td>Millenium BCP</td>
<td>Finance</td>
<td>20/09/2019</td>
<td>EUR</td>
<td>2,075</td>
<td>3.87</td>
<td>Ba3</td>
<td>B</td>
<td>BB-</td>
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<tr>
<td>OTE Finance SARL</td>
<td>Telecommunications</td>
<td>23/09/2019</td>
<td>USD</td>
<td>500</td>
<td>6.75</td>
<td>B1</td>
<td>B+</td>
<td>NR</td>
</tr>
<tr>
<td>Elis SA</td>
<td>Professional Services</td>
<td>24/09/2019</td>
<td>EUR</td>
<td>350</td>
<td>1.00</td>
<td>NR</td>
<td>BB+</td>
<td>BB+</td>
</tr>
<tr>
<td>Elis SA*</td>
<td>Professional Services</td>
<td>24/09/2019</td>
<td>EUR</td>
<td>350</td>
<td>1.63</td>
<td>NR</td>
<td>BB+</td>
<td>BB+</td>
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<tr>
<td>UVHC Fince 2 SARL</td>
<td>Leisure &amp; Recreation</td>
<td>25/09/2019</td>
<td>EUR</td>
<td>150</td>
<td>7.25</td>
<td>NR</td>
<td>CCC+</td>
<td>NR</td>
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<tr>
<td>Axton Martin Capital Holdings Ltd</td>
<td>Auto/Truck</td>
<td>25/09/2019</td>
<td>USD</td>
<td>315</td>
<td>6.00</td>
<td>B3</td>
<td>CCC+</td>
<td>NR</td>
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<tr>
<td>Monitech HOLDCO 3 SA</td>
<td>Chemicals</td>
<td>26/09/2019</td>
<td>EUR</td>
<td>175</td>
<td>5.25</td>
<td>B2</td>
<td>NR</td>
<td>NR</td>
</tr>
<tr>
<td>Monitech HOLDCO 3 SA**</td>
<td>Chemicals</td>
<td>26/09/2019</td>
<td>EUR</td>
<td>300</td>
<td>9.50</td>
<td>Caa2</td>
<td>NR</td>
<td>NR</td>
</tr>
<tr>
<td>Alarma Corporacion Bancaria SA</td>
<td>Finance</td>
<td>26/09/2019</td>
<td>EUR</td>
<td>500</td>
<td>4.63</td>
<td>Ba2</td>
<td>BB+</td>
<td>NR</td>
</tr>
<tr>
<td>Helinorc Petroleum Finance plc</td>
<td>Oil &amp; Gas</td>
<td>27/09/2019</td>
<td>EUR</td>
<td>600</td>
<td>2.00</td>
<td>NR</td>
<td>NR</td>
<td>NR</td>
</tr>
<tr>
<td>DEMIRE Deutsche Mittelstand Real Estate AG</td>
<td>Real Estate/Property</td>
<td>30/09/2019</td>
<td>EUR</td>
<td>1,050</td>
<td>1.88</td>
<td>Ba2</td>
<td>BB+</td>
<td>NR</td>
</tr>
</tbody>
</table>

* denotes multiple tranches of the deal

Source: Dealogic
5 Issuance – European Emerging Market High Yield Bonds

5.1 European Emerging Market HY Bond Issuance

5.2 European Emerging Market HY Bond Issuance by Currency

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

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

5.5 European Emerging Market HY Issuance, Fixed vs. Floating

5.6 European Emerging Market HY Issuance, Sponsored vs. Corporate
5.7 European Emerging Market HY Rating Distribution at Issuance

5.8 European Emerging Market Corporate Bonds Outstanding: 3Q 2019

5.9 European Emerging Market HY Bond Issuance

<table>
<thead>
<tr>
<th>Issuer</th>
<th>Industry Group</th>
<th>Date</th>
<th>Currency</th>
<th>Amount (Millions)</th>
<th>Coupon</th>
<th>Moodys</th>
<th>S&amp;P</th>
<th>Fitch</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ukraine Railways AT - Ukrzaliznytsia</td>
<td>Transportation</td>
<td>01/07/2019</td>
<td>USD</td>
<td>500</td>
<td>8.250</td>
<td>NR</td>
<td>NR</td>
<td>B</td>
</tr>
<tr>
<td>Naftogaz Ukraine NAK</td>
<td>Oil &amp; Gas</td>
<td>12/07/2019</td>
<td>EUR</td>
<td>335</td>
<td>7.375</td>
<td>NR</td>
<td>NR</td>
<td>B</td>
</tr>
<tr>
<td>Air Baltic Corp SIA</td>
<td>Transportation</td>
<td>23/07/2019</td>
<td>EUR</td>
<td>200</td>
<td>6.750</td>
<td>NR</td>
<td>BB-</td>
<td>NR</td>
</tr>
<tr>
<td>Ukraine Railways AT - Ukrzaliznytsia</td>
<td>Transportation</td>
<td>10/09/2019</td>
<td>USD</td>
<td>95</td>
<td>6.250</td>
<td>NR</td>
<td>NR</td>
<td>B</td>
</tr>
<tr>
<td>MHP Lux SA</td>
<td>Agribusiness</td>
<td>12/09/2019</td>
<td>USD</td>
<td>350</td>
<td>6.250</td>
<td>NR</td>
<td>B</td>
<td>B+</td>
</tr>
<tr>
<td>ChelPipe</td>
<td>Metal &amp; Steel</td>
<td>15/09/2019</td>
<td>USD</td>
<td>300</td>
<td>4.500</td>
<td>Ba3</td>
<td>NR</td>
<td>BB</td>
</tr>
<tr>
<td>GTLK Europe Capital dac</td>
<td>Finance</td>
<td>25/09/2019</td>
<td>USD</td>
<td>550</td>
<td>4.950</td>
<td>Ba2</td>
<td>NR</td>
<td>BB+</td>
</tr>
<tr>
<td>Sovcombank</td>
<td>Finance</td>
<td>30/09/2019</td>
<td>USD</td>
<td>300</td>
<td>8.000</td>
<td>NR</td>
<td>NR</td>
<td>BB</td>
</tr>
</tbody>
</table>

* denotes multiple tranches of the deal

Source: Dealogic, AFME, SIFMA

Source: Bloomberg, AFME, SIFMA

Source: Dealogic
Credit Quality

6 Credit Quality

6.1 Developed Europe Issuer Rating Actions\(^5\)

6.2 Emerging Europe Issuer Rating Actions\(^6\)

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

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

6.5 European High Yield Default Rates

6.6 European Leveraged Loan Default Rates\(^7\)

\(^5\) 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

![Graph showing CDS spreads vs. liquidity-stress index and HY bonds rated B3 neg and lower in Europe. Source: Moody's]

6.8 European Defaults

<table>
<thead>
<tr>
<th>Issuer</th>
<th>Industry Group</th>
<th>Country</th>
<th>Date</th>
<th>Reported By</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weatherford International PLC</td>
<td>Oil and gas</td>
<td>Ireland</td>
<td>July 2019</td>
<td>S&amp;P</td>
<td>Chapter 11</td>
</tr>
<tr>
<td>Galapagos S.A.</td>
<td>Manufacturing</td>
<td>Germany</td>
<td>July 2019</td>
<td>Moody's</td>
<td>Missed interest payment</td>
</tr>
<tr>
<td>Thomas Cook Group PLC</td>
<td>Media and entertainment</td>
<td>U.K.</td>
<td>September 2019</td>
<td>S&amp;P, Moody's</td>
<td>Chapter 15</td>
</tr>
</tbody>
</table>

Source: Standard & Poor's, Moody's
7 Relative Value and Total Return

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

7.2 Relative value: European Leveraged Loans, Cash

7.3 European Leveraged Loan Total Return

7.4 European Leveraged Loan Total Return

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

Source: Thomson Reuters Eikon, Markit

Source: Thomson Reuters LPC

Source: BAML

Source: Standard & Poor’s LCD

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. SGL 3: Adequate liquidity. Expected to rely on external sources of committed financing. SGL 4: 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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