



Q Highlights

In conjunction with the 25bps interest rate hike in September, the Fed, taking a hawkish stance on monetary policy, raised its economic outlook and dropped the "accommodative" language that has long been a component of its formal statement.

In August, the Bank of England (BOE) raised interest rates, citing a strong labor market and credit growth. UK economic growth rebounded in the second quarter following a slowdown in the first quarter, which the BOE attributes largely to weather. One of the most significant risk to economic growth remains Brexit negotiations between the UK and European Union.

Private debt and equity dry powder continued to build, supporting higher leveraged buyout (LBO) purchase multiples and lower credit spreads. This trend may continue to result in private credit funds and direct lenders gaining market share from banks - despite loosening regulations.

Lending standards have remained more rigorous in the lower middle-market (<\$25M EBITDA), where total leverage is largely holding below 6x and financial covenants remain intact (i.e., a limited number of covenant-lite or covenant-loose transactions). At the same time, we note diminishing underwriting standards at the upper end of the middle-market (>\$25M EBITDA), which we attribute to the abundance of available capital (a result of collateralized loan obligations (CLOs) and other non-direct origination sources).

Rising borrowing costs have resulted in a significant decline in refinancing activity year-to-date (YTD), particularly in the third quarter. There has been a significant shift toward opportunistic financings for growth-related purposes and leveraged recapitalizations. As economic conditions continue to stoke M&A related activities and a hawkish Fed focuses on raising rates, we anticipate that the trend away from refinancings will likely continue.



The Fed hiked rates another quarterpoint in September, as widely anticipated, and dropped the longstanding "accommodative" language from its formal statement.



Private debt and equity dry powder continued to build, supporting higher LBO purchase multiples and contributing to lower credit spreads.



Rising borrowing costs have resulted in a significant decline in refinancing activity YTD particularly in the third quarter.

Executive Summary

In the U.S., the Fed provided yet more hawkish guidance in conjunction with its announcing a third quarter-point rate hike in September 2018, signaling a likely fourth 25bps rate hike in 2018 and four additional quarter-point hikes through 2020. The BOE, continuing on its path to tighter monetary policy, raised interest rates in August and indicated that if its macroeconomic forecasts prove out, it will likely increase rates further, albeit gradually.

In light of the rising rate environment, we noted that refinancing activity is down significantly YTD. Replacing refinancing issuance, that dominated new issuance for the last several years, has been an increase in acquisition-related financings and recapitalization transactions. To support growth, we have noted anecdotally for middle-market issuances that delayed draw term loans have become a key component of many financings, and are likely being used to fund growth capital expenditures and acquisitions. In these cases, draws typically are subject solely to pro forma covenant compliance.

We note that underwriting standards have become less rigorous at the upper end of the middle-market (>\$25M EBITDA) due to the abundance of available capital (a result of the proliferation of CLOs and other non-direct origination sources). At the same time, as Rich Jander, managing director at Maranon Capital, noted, "Lending standards have remained more fastidious in the lower middle-market (<\$25M EBITDA), where leverage is largely holding below 6x and financial covenants remain intact (i.e., not seeing covenant-lite or covenant-loose transactions)."

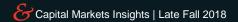
Jander continued that "with interest rates rising, lenders, in recent weeks, are becoming more selective around businesses viewed as cyclical, and are favoring businesses with strong underlying demographic trends."

Loan spreads continue to tighten, particularly with institutional lending sources, as lenders compete with each other on rate and as default risk remains very low. In addition, the recent increase in the LIBOR rate has allowed lenders to reduce spread and maintain all-in yields. Ted Koenig, president and CEO at Monroe Capital, said "We believe that private credit funds and direct lenders will continue to gain market share against banks, despite loosening leveraged lending regulatory guidelines. We are starting to see larger unitranche products (some instances of covenant-lite), as well as direct lenders taking significantly larger bite-sizes than they have traditionally done in the past."

Koenig further noted that "private equity and private debt dry powder levels continue to build, pushing LBO purchase price multiples higher and spreads tighter. Credit quality will potentially suffer as more companies are coming for sale sooner than they should in order to take advantage of the current supply and demand imbalance." Tighter spreads have largely offset rising base rates to date; but with overall rates rising, refinancing issuance has abated, and new issuance has shifted significantly toward more opportunistic financings for growth-related and leveraged recapitalization transactions. We anticipate this trend will likely continue so long as the credit markets and economic conditions warrant.

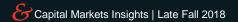
Indicative Middle-Market Credit Parameters

U.S. LEVERAGE MULTIPLES	INFORMATION IN RED REPRESENTS PRIOR QUARTER VIEW (WHEN DIFFERENT THAN CURRENT QUARTER)		
	EBITDA OF \$10M-\$20M	EBITDA OF \$20M-\$50M	
SENIOR	4.00x-5.00x	4.50x-5.50x	
	3.75x-4.75x	4.25x-5.25x	
TOTAL DEBT	EBITDA OF \$10M-\$20M	EBITDA OF \$20M-\$50M	
	5.00x-6.00x	5.50x-6.50x	
	4.50x-5.50x	5.00x-6.00x	
UK/EUROPE LEVERAGE MULTIPLES			
	EBITDA OF €10M–€20M	EBITDA OF €20M–€50M	
SENIOR	4.00x-5.00x	4.50x-5.50x	
	3.50x-4.50x	4.00x-5.00x	
TOTAL DEBT	EBITDA OF €10M–€20M	EBITDA OF €20M–€50M	
	4.50x-5.50x	4.75x-5.75x	
	4.00x-5.00x	4.50x-5.50x	



U.S. Indicative Middle-Market Credit Parameters

PRICING	EBITDA OF \$10M-\$20M	EBITDA OF \$20M-\$50M
FIRST LIEN	LIBOR + 2.25%-3.00% (bank)	LIBOR + 2.00%–2.75% (bank)
	LIBOR + 3.50%–5.50% (nonbank)	LIBOR + 3.50%–5.50% (nonbank)
SECOND LIEN	LIBOR + 6.00%-9.00%	LIBOR + 5.50%-8.50%
SUBORDINATED	10.50%-12.50%	9.50%–11.50%
DEBT		
UNITRANCHE	LIBOR + 5.50%-8.00%	LIBOR + 5.00%–7.50%



UK/Europe Indicative Middle-Market Credit Parameters

INFORMATION IN RED REPRESENTS PRIOR QUARTER VIEW (WHEN DIFFERENT THAN CURRENT QUARTER)

	VIEW (WILLIAM THAT OUTCENT GOARTER)		
PRICING	EBITDA OF €10M–€20M	EBITDA OF €20M–€50M	
FIRST LIEN	LIBOR/EURIBOR + 3.00%-4.00% (bank) LIBOR/EURIBOR + 3.50%-4.00% (bank)	LIBOR/EURIBOR + 2.75%-3.25% (bank) LIBOR/EURIBOR + 3.25%-3.75% (bank)	
	LIBOR/EURIBOR + 4.50%-6.00% (nonbank	LIBOR/EURIBOR + 4.00%–6.00% (nonbank)	
SECOND LIEN	LIBOR/EURIBOR + 8.00%-10.00%	LIBOR/EURIBOR + 7.50%-9.50%	
SUBORDINATED DEBT	10.50%-12.50%	9.50%–11.50%	
UNITRANCHE	LIBOR/EURIBOR + 5.75%-8.00%	LIBOR/EURIBOR + 5.25%-7.50% LIBOR/EURIBOR + 5.25%-8.00%	



New Issuance •••••

Total U.S. High-Yield Bond Issuance

4Q14 1Q15

2Q15

3Q15

4Q15

Third-quarter U.S. high-yield issuance volume of \$43B and the number of new issuances (67) declined from the previous quarter by 7% and 25%, respectively. High-yield issuance continued to decelerate, with September posting its lowest issuance volume since 2011, and YTD issuance volume down 29% versus the prior YTD period. In light of an increasingly hawkish Fed and rising rates, investors and issuers alike seemed to favor the leverage loan market.

2Q17 3Q17 4Q17 1Q18

Number of Tranches Total Bond Volume (\$B) \$125 300 250 \$100 94.1 91.3 83.4 81.7 200 64.2 \$75 67.6 64.8 64.5 62.7 61.1 150 46.4 47.1 \$50 43.3 39.8 36.3 36.1 100 \$25 50 \$0

1Q16 2Q16 3Q16 4Q16 1Q17



New Issuance

Total European High-Yield Bond Issuance

2Q15

3Q15 4Q15

Total Bond Volume (€B)

€0

Second-quarter high-yield issuance volume of €12B and number of new issuances (32) were lower versus the prior quarter by 46% and 40%, respectively. This is a trend that has been repeated in each of the past five years apart from the third quarter of 2016. While, on the whole, conditions in the market remain attractive for both lenders and borrowers, it is clear that high-yield is taking a back seat to the loan market-with lack of supply being of particular concern.

€40 200 29.0 150 27.1 24.4 22.4 21.2 19.6 19.0 18.8 18.7 €20 100 16.9 12.0 10.4 10.2 8.1 50 7.1

1Q16 2Q16 3Q16 4Q16 1Q17 2Q17 3Q17 4Q17 1Q18

Source: LCD Comps

Number of Tranches

New Issuance



Third-quarter U.S. loan issuance was \$375B on 809 deals, representing significant declines of 61% and 33%, respectively. Loan volume declined in line, with a pullback in refinancing activity, as new money issues represented 77% of issuance in the third quarter versus 35% in the first half of 2018.

U.S. Total Loan Issuance



New Issuance

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Third-quarter European loan issuance volume totaled €114B, decreasing 55% over the second quarter. The relatively smaller 21% decrease in the number of third-quarter issuances versus the second quarter is largely the result of sizable deals completed in Q1 and Q2 (five of the largest 10 issuances since 2008 were completed in Q1 and Q2 2018).

European Total Loan Issuance

Total Loan Volume (€B) Number of Deals



New Issuance

U.S. middle-market loan volume and number of issuances fell dramatically to \$182B and 626, respectively, representing a steep decline of 62% and 34%, respectively. Middle-market loan issuance experienced a similar pullback in refinancings to that of overall leveraged loans.

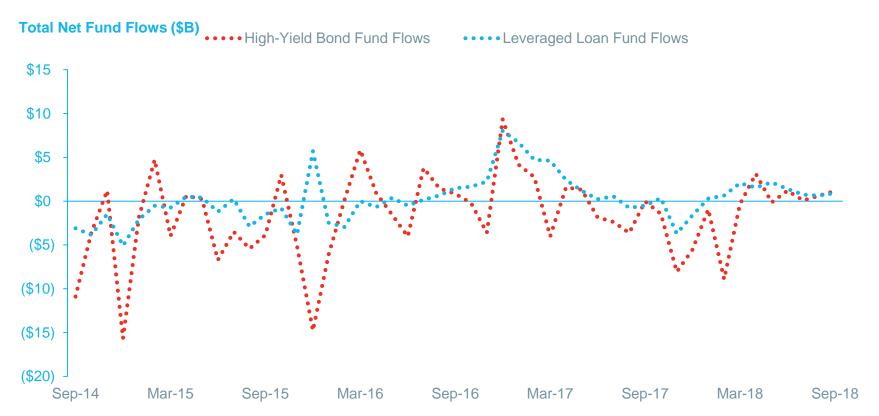
U.S. Total Loan Issuance (EBITDA <\$50M)



Fund Flows

Both bond funds and leveraged loan funds saw modest inflows. In particular, bond funds experienced a net inflow of nearly \$2B in the third quarter after an inflow of almost \$4B in the second quarter. Leveraged loan fund flows had another quarter of inflow following a strong gain of more than \$5B in the second quarter.

Mutual Fund Flows



Leverage

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U.S. middle-market first-lien leverage has increased to approximately 5.0x, presumably a result of the strong unitranche bid, while second-lien/subordinated leverage experienced a resurgence and increased a half-turn of EBITDA, pushing total leverage close to 6.0x.

U.S. Leverage Multiple (EBITDA <\$50M)



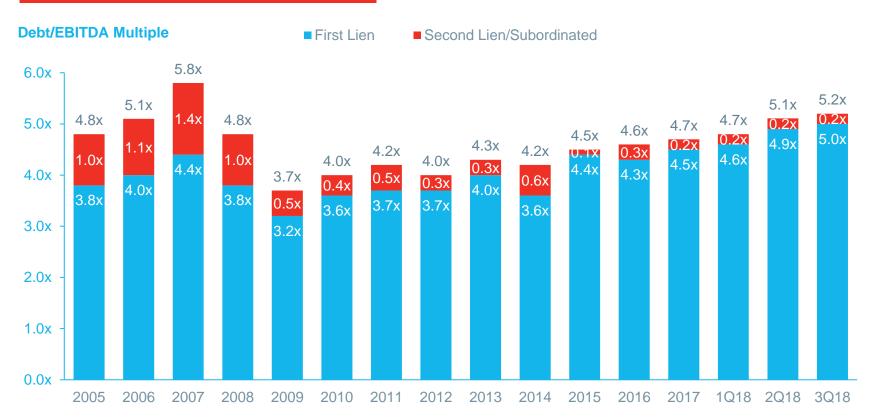
Source: LCD Comps

Leverage

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European middle-market leverage levels continued to increase in the third quarter, with first-lien and total leverage at 5.0x and 5.2x, respectively. Total leverage of 5.2x represents the highest level for the European market since Q1 2008 and, on a year-to-date basis, the highest level since 2007. The swell in M&A activity and the excess supply of capital is largely driving the surge in leverage.

European Leverage Multiple (Enterprise Value <€350M)



Source: LCD Comps

Transaction Volume ••••

Third-quarter middle-market M&A volume declined 8% over the second quarter, while deal count increased 9% over the same period. Middle-market M&A somewhat bucked the global decline in M&A volume, which dropped 35% in the third quarter, as the escalating trade dispute between the U.S. and China and rising interest rates impacted the prospects of some deals.

U.S. Middle-Market M&A Volume (Target EBITDA <\$50M)



Transaction Volume

European middle-market M&A deal-making fell in the second quarter, with transaction volume declining 20% and the number of deals declining 8% from the prior quarter. While M&A volume was lower in Q3, year-to-date M&A volume is broadly in line with the past three years. The drop in third-quarter European volume largely reflects the wider geopolitical uncertainty overshadowing the financial and regulatory prospects of some deals.

European Middle-Market M&A Volume (Target EBITDA <€50M)



Transaction Volume ...

Loan volume for syndicated leveraged recapitalizations declined 77% in the third quarter from the second quarter. Despite this decline, Duff & Phelps received many requests from middle-market issuers for leveraged dividend recap transactions, and an abundance of lenders interested in financing such transactions. We believe the overall decline in dividend recap volume is likely transitory, as most loan issuance in the third quarter related to M&A and LBO activities - perhaps a sign that sponsors and issuers may have shifted focus to growth opportunities to remain relevant.

U.S. Loan Issuance for Dividend Recapitalizations

Total Loan Volume (\$B)



Source: LCD Comps

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U.S. non-investment-grade bond yields decreased 27bps this quarter, due to a decline in Treasury yields, as well as lower default rates, resulting in lower risk premia. Yields on widely traded leveraged loans decreased just 4bps from the previous quarter, as LIBOR rose 6bps, offsetting much of the benefit of lower default expectations.

U.S. Corporate High-Yield Bonds and Leveraged Loans



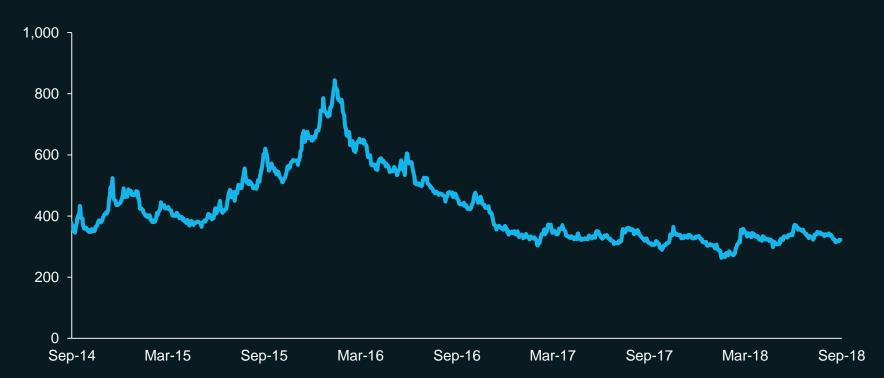
Sources: Bloomberg; LCD Comps

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Spreads between 10-year Treasuries and high-yield bonds narrowed from 337bps in the second quarter to 322bps in the third quarter due to another quarter of low default activity, reducing the default rate to 2.2%.

U.S. Corporate High-Yield Bond Versus 10-Year Treasury Spread

Spread (bps)



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In September 2018, Treasury yields reached their highest level since 2011 - due in large part to macroeconomic strength, including positive job market news and rising inflation data. In the Fed's September statement, language characterizing monetary policy as "accommodative" was removed, likely signaling a new phase of Fed tightening in light of strong economic growth.

2-, 5- and 10-Year Treasury Yields



Source: Bloomberg

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2-Year Versus 10-Year Treasury Spread

The spread between 2- and 10-year Treasury yields decreased by approximately 9bps over the quarter, ending at a spread of just 24bps as the yield curve continued to flatten. The effects of the trade war and monetary policy tightening seem to be constraining long-term growth expectations and keeping long-term rates from moving significantly higher, with the difference between short- and long-term Treasury rates at the lowest level since 2007.

Spread (bps)



Source: Bloomberg

Macroeconomic Update

Real GDP Growth

The 3.5% third quarter real GDP advance estimate indicates slightly lower year-over-year growth than the 4.2% GDP growth seen in the second quarter. The job market continued to tighten, with unemployment falling to 3.7% and wages growing to 2.8% in September.

GDP Growth Rate



Source: Federal Reserve



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