

Credit Trends:

Global Financing Conditions: Bond Issuance Is Expected To Decline 0.6% In 2019

January 30, 2019

Key Takeaways

- We expect many of the global risks in 2018 to continue into 2019, and nearly all could have a deleterious effect on issuance. An overall decline in issuance in the U.S. is expected, though at a slower pace relative to 2018, as economic growth slows, fiscal stimulus fades, interest rates remain moderately elevated, and equity markets face continued headwinds this year.
- In Europe, the Brexit process will most likely be extended beyond the current March deadline, given the current deadlock in the British government. This may lessen near-term market volatility for Europe but adds uncertainties to the longer term. The ECB is expected to start raising interest rates later this year, possibly exiting negative interest rates at year-end, and concerns over a slowing regional economy are growing. This combination will likely keep European bond issuance subdued this year.
- Emerging markets are expected to experience slower economic growth across all subregions in 2019, largely as a result of trade conflicts this year. That said, stabilizing issuance in China is a growing possibility, as the government could pause its deleveraging campaign in the face of an expected decline in GDP growth. The upcoming maturity schedules for the industrial and financial services sectors this year are noticeably higher than in 2018, which should also somewhat offset the gloomier economic expectations.
- Despite a growing list of challenges at this point of the year, issuance could see some support if monetary policies among the central banks move back into easing territory. This path is still not in S&P Global economists' baseline expectations for the Fed or ECB, but policymakers are already communicating concerns over slowing economic growth and growing geopolitical headwinds. The majority of market expectations at this point are for the Fed to maintain the current target rate over the course of 2019, and sentiment is growing in Europe that the ECB may hold off on raising rates this year.

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S&P Global Fixed Income Research expects global bond issuance to finish 2019 with a decline of

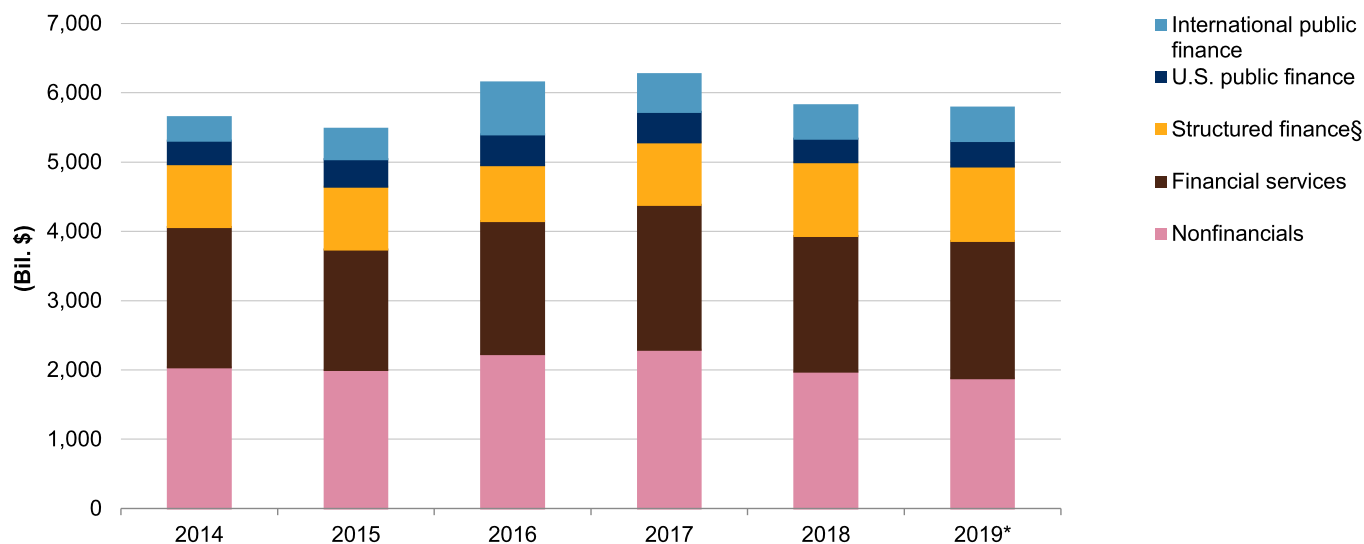
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0.6% from the 2018 total (see chart 1 and table 1). Our base case assumptions for 2019 factor in a continuation of increased market volatility, slowing global economic growth, and higher interest rates in the U.S. and (eventually) in Europe. Emerging markets could fluctuate between increased capital outflows and increased domestic interest rates, with support for issuance growth coming from a large increase in maturing debt, particularly in China.

Financing conditions tightened in the U.S. and Europe during the fourth quarter, largely as a result of an abrupt increase in financial market volatility, leading to a complete lack of speculative-grade bond issuance in both regions in December. Corporate credit spreads widened considerably in the last weeks of the year, and though they have declined somewhat since, we nonetheless believe tighter financial conditions are here to stay, signaling a turn in the credit cycle. Longer-dated Treasury yields have fallen amid market turmoil, but shorter-term yields have declined less so, pushing the yield curve to its lowest level since June 2007.

Chart 1

Historical Global Issuance And Forecast



*Full-year forecast. §Structured finance excludes transactions that were fully retained by the originator, domestically rated Chinese issuance, and CLO resets and refinancings. Sources: Harrison Scott, Thomson Financial, and S&P Global Fixed Income Research.

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Table 1

Global Issuance Summary And Forecast

(Bil. \$)	Industrials	Financial services	Structured finance*	U.S. public finance	International public finance	Annual total
2009	1,698.8	1,831.6	572.0	409.7	295.7	4,807.7
2010	1,287.1	1,484.2	895.0	433.3	306.9	4,406.4
2011	1,330.9	1,336.7	942.4	287.7	336.3	4,234.0

Table 1

Global Issuance Summary And Forecast (cont.)

(Bil. \$)	Industrials	Financial services	Structured finance*	U.S. public finance	International public finance	Annual total
2012	1,756.0	1,568.2	786.3	379.6	339.1	4,829.2
2013	1,881.5	1,530.5	803.5	334.1	316.3	4,865.9
2014	2,036.3	2,026.3	905.3	339.0	340.1	5,647.0
2015	1,998.3	1,741.2	905.0	397.7	441.3	5,483.5
2016	2,227.8	1,919.6	807.6	444.8	750.7	6,150.5
2017	2,290.8	2,093.9	901.8	436.3	544.2	6,267.1
2018	1,974.7	1,958.4	1,064.5	338.9	482.7	5,819.2
2019 full-year forecast (year-over-year % change)	(4.8)	1.3	0.8	9.0	(0.6)	(0.6)

*Structured finance excludes transactions that were fully retained by the originator, domestically rated Chinese issuance, and CLO resets and refinancings. Sources: Thomson Financial, Harrison Scott, and S&P Global Fixed Income Research.

Because we report our issuance figures in dollars, exchange rate fluctuations are always an area of focus. Some appreciation in the U.S. currency is expected in 2019, but broadly less than in 2018, and this appreciation should be generally limited to certain regions. The potential course of monetary policies from other central banks must also be considered, and emerging economies often raise interest rates to keep pace with a strengthening dollar to stabilize inflation and minimize capital outflows. That said, S&P Global economists expect major European currencies to generally remain stable against the dollar over the course of 2019, while most emerging market currencies are expected to depreciate. All else being equal, these fluctuations could be a downside to our issuance projections.

Looking Ahead

We expect this year's overall bond issuance to decline marginally from the 2018 total, by 0.6%. Few, if any, of the geopolitical and macroeconomic risks to our forecast were resolved in 2018. Markets are showing more sensitivity to events as time passes, and many of these risks are expected to converge toward the middle or latter half of 2019. Economic growth projections continue to be revised slowly downward, the U.S.-China trade dispute has been put on a temporary hold, the yield curve in the U.S. continues to flatten, and there are two months to go until Article 50 comes into effect with no settled Brexit agreement in sight. Offsetting these issues is our expectation that the Federal Reserve will ease up the pace of monetary tightening this year. And given the recent failure of a proposed Brexit agreement, the ultimate agreement could be "soft," thus causing less market turmoil.

Nonfinancials

For 2019, we expect total (rated and unrated) nonfinancial bond issuance to decline by 3%-7%. The U.S. is expected to lead the decline, faced with the combination of higher interest rates and tighter financing conditions, more alternative funding sources (mostly cash) available after tax reform, and continued market unease over the future course of trade policies. Additionally, S&P Global economists expect slower GDP growth, tepid equity market performance, and high odds of

an inverted yield curve. Fiscal stimulus in the U.S. will fade this year, and it is unclear whether markets have fully accounted for this and the potential impact on corporate earnings growth, though the effect should become more obvious in the spring earnings season.

Issuance in Europe is also expected to decline in 2019 as economic growth moderates there as well, and as the European Central Bank (ECB) starts to gradually rein in monetary stimulus later in the year. Financing conditions in Europe are still quite favorable for borrowers but are showing sensitivity to more volatile global markets recently. The ECB will start raising rates around September and exit negative interest rates by December. If interest rates remain near their current lows, or if the spread between U.S. and European issuers widens further, global investors will likely turn to U.S. corporates as a higher-yielding alternative. S&P Global economists' projection for GDP growth in the eurozone is 1.6% in 2019, down from a 1.7% projection in the third quarter of 2018.

Financial market volatility in reaction to the ongoing U.S.-China trade dispute hit many countries in 2018, but it was particularly acute in the case of Chinese equities, which fell 33%. Economic growth is expected to slow in China in 2019, and authorities there are likely to pause their yearslong deleveraging campaign to offset slowing growth. China also remains committed to opening domestic financial markets to international investors, though this process could conceivably be delayed in the face of an escalating trade war with the U.S. The face value of Chinese bonds maturing in 2019 and 2020 total \$687.2 billion, up from \$413.1 billion in 2017 and 2018. Although some of this total has likely been prepaid, the large increase has been supporting issuance in the country in 2018 and should continue to this year. Chinese issuance has accounted for over half of all issuance outside of the U.S. and Europe in the past five years.

Cash repatriation's effect on U.S. nonfinancial issuance

Largely due to recent tax reform, the U.S. saw a 70% decline in issuance among the firms with the largest stores of offshore cash in 2018. Nearly all of the total issuance by these firms in 2017 was investment grade and from nonfinancials. Given there is no longer a tax-based incentive to keep cash offshore--and given the substantial amount of bond issuance these firms had from 2013 onward (about \$720 billion)--we analyzed the specific impact that tax reform and cash repatriation could have on U.S. corporate bond issuance over the next several years.

We do not expect these issuers to return to the market at anywhere near the rate they did over the 2013-2017 period. While we generally expect these entities to take a balanced approach to their cash and debt levels, it is more likely that they will refinance near-term maturities with some of their newly repatriated funds, particularly amid rising rates. Additionally, only about a third of the outstanding total bond issuance attributable to these firms over the 2013-2018 period will come due through 2022, with a sizable amount of their recent issuance carrying maturities of 10 years or more.

In 2017, the largest offshore cash holders represented 19.2% of the U.S. nonfinancial bond total. In 2018, that proportion fell to 7.7%, which is in line with the 2000-2012 annual average proportion of 7.3%. We expect these issuers to fall within a 5%-9% range of the nonfinancial total moving forward. In terms of issuance growth, the 5.3% compound annual growth rate these issuers saw over the 2000-2013 period is a fair approximation of a future base case--as opposed to the 19% compound annual growth rate for their issuance from 2013-2017.

Financial institutions

We expect issuance among financial services companies to marginally increase in 2019, by up to 3%. Market volatility appears to negatively correlate with U.S. and European financial services issuance and has been suppressing activity in the past 12 months. Actual equity volatility has been markedly higher than predicted at the start of 2018 and is expected to continue or resurface in bouts during 2019. Reserves at U.S. banks have been seeing a downward trend in recent years, which has also led to a similar drop-off in issuance.

European banks have increased issuance of new and innovative debt types to boost their bail-in buffers in accordance with bank resolution regimes, but thus far banks have substituted these new instruments for traditional unsecured debt, rather than driving new issuance. Given economic conditions, the ECB is not expected to initiate another round of targeted longer-term refinancing operations (TLTROs), which would force banks to look elsewhere for funding when the current rounds expire in 2020 and 2021. The rate at which TLTROs mature over the next few years should provide gradual boosts to bond issuance by banks in need of alternative funding sources, and some may start this process in the second half of this year.

The upcoming maturity profiles of global financial institutions through 2020 also require sizable amounts of new debt for refinancing needs, particularly in China. And unlike their European counterparts, banks in China are expected to increase issuance in coming years to satisfy their upcoming adoption of total loss-absorbing capacity requirements. Banks may also increase their bond issuance to fund floating-rate loans to corporations, which should see increased demand from investors if interest rates continue to rise. That said, a large share of maturing Chinese bank issuance is in the form of negotiable certificates of deposit, which are excluded from our figures due to their shorter (under one year) maturities.

Structured finance

For global structured finance, issuance in 2018 comfortably surpassed \$1 trillion, up more than 15% from the previous year. This upward trend in aggregate investor-placed securitization and covered bond volumes was broad-based, stemming from robust growth across numerous sectors and in each major region. The global collateralized loan obligation (CLO) sector was particularly strong, with issuance surging to a new postcrisis high.

Following this banner year, though, we expect combined securitization and covered bond issuance could be broadly flat in 2019, once again coming in at just over \$1 trillion. While there is scope for further advances in some areas--such as U.S. residential mortgage-backed securities (RMBS)--a recent decline in the rate of underlying leveraged loan originations could be a precursor to lower CLO issuance. In Europe, the upcoming maturing of banks' large-scale official sector borrowings is a positive for supply, but lingering uncertainty over the implementation details of a new regulatory regime for EU securitizations could lead to a hiatus in activity early in the year. While some originators may substitute covered bond issuance to meet their secured funding needs, others--notably nonbanks--may look to alternatives outside the structured finance market while the new regulations bed down. Other downside risks include possible market and economic disruptions due to increasingly protectionist U.S. trade policy and developments in the U.K.'s Brexit process.

Note that in this report, our figures exclude Chinese securitization issuance rated only by domestic rating agencies, as well as global CLO resets and refinancings.

U.S. public finance

U.S. municipal bond issuance was 22% lower in 2018 than in 2017. Changes to the tax exemption of certain municipal bonds and a rush of issuance at the end of 2017 to avoid anticipated negative effects of the Tax Cuts and Jobs Act (TCJA) suppressed volume in 2018. We expect the market to recover somewhat, issuing between 7% and 11% more in 2019 than in 2018. However, the impact of the TCJA will continue, reducing annual volume from the approximate \$400 billion average from 2014-2017.

Yields on municipal bonds declined slightly in 2018, nudging returns into positive territory. Returns were significantly lower than in 2017. Much of the gains in 2018 occurred late in the year in response to volatility in equity markets and to general investor anxiety.

International public finance

For international public finance issuers, volume declined 11% from 2017, with all regions issuing less than in the previous year. Despite the drop in 2018, the past four years have recorded the highest volume ever for international public finance, with 2018's total being the third highest. We believe issuance in 2019 will be similar to the roughly \$480 billion total in 2018.

2018 Summary

Global new bond issuance in 2018 totaled \$5.8 trillion, down 7.2% relative to 2017. Nearly all of the drop-off was due to weakness in developed markets, and nearly all asset classes experienced declines, particularly in the fourth quarter. Nonfinancial corporates were down 13.8% relative to 2017, financial services were off 6.5%, and U.S. and international public finance were below their 2017 totals by 22.3% and 11.3%, respectively. The lone area of growth in 2018 was global structured finance, which expanded over 18% to once again become a \$1 trillion asset class.

These figures reflect debt from the corporate, public finance, and investor-placed structured finance sectors. They include only long-term debt (maturities greater than one year) and exclude debt issued by supranational organizations. All references to investment-grade (rated 'BBB-' or higher) and speculative-grade (rated 'BB+' or lower) debt refer to those issues rated by S&P Global Ratings.

Fourth-Quarter Volatility Pushed Most U.S. Financing Conditions Out Of Supportive Territory

Financing conditions in the U.S. had been gradually tightening through most of 2018 but turned far more restrictive in December. The risk-off sentiment pushed corporate bond spreads out by 42 basis points (bps) for investment grade and 181 bps for speculative grade from the start of the fourth quarter. Speculative-grade spreads fell just short of 500 bps by year-end. Liquidity in the speculative-grade bond market hit a low point in the latter part of the year, with no speculative-grade bond issues coming to market after Nov. 15.--the longest such drought since 2008. Concerns over Fed rate hikes in 2019, as well as persistent fears surrounding the ongoing trade dispute between the U.S. and China, contributed to the negative market sentiment, and many investors fled to Treasuries, pushing their yields down (a large contributor to the widening spreads for corporate bonds).

Credit Trends: Global Financing Conditions: Bond Issuance Is Expected To Decline 0.6% In 2019

Some relief came in the first weeks of 2019, as the language out of the Fed seemed to indicate an awareness of these rising threats to the financial system and the higher probability for either a slower pace or outright pause in monetary policy tightening this year. After the events of December, S&P Global economists now anticipate only two rate hikes by the Fed in 2019, down from a previous expectation of three. According to the CME FedWatch Tool, a majority of market participants expect the Fed to maintain the current policy rate of 2.25%-2.5% through year-end, which we see as a rising possibility.

At this point, we deem most financing conditions to be neutral (neither supportive nor restrictive to lending, on average) (see table 2). As mentioned, most indicators of financing conditions have moved in a tightening direction since the start of 2018, with some stress seen at all levels of credit risk and in both primary and secondary markets. Some easing has ensued since the end of 2018, but at this point, we would call that only a temporary correction of the December market spasms. Overall, we believe the tightening trend will continue, though to a more modest extent.

Table 2

Indicators Of Financing Conditions: U.S.

	Restrictive	Neutral	Supportive	2018*	2017*	2016*
Triparty repo market--size of collateral base (mil. \$)			x	2,128.3	1,896.1	1,759.4
Three-month nonfinancial commercial paper yields (%)	x			2.55	1.55	0.79
Three-month financial commercial paper yields (%)	x			2.77	1.65	0.87
10-year Treasury yields (%)		x		2.69	2.43	2.49
Yield curve (10-year minus three-month) (bps)	x			24	104	202
Yield to maturity of new corporate issues rated 'BBB' (%)		x		4.66	3.37	3.61
Yield to maturity of new corporate issues rated 'B' (%)		x		--	7.09	6.76
10-year 'BBB' rated secondary market industrial yields (%)		x		4.80	3.82	4.28
Five-year 'B' rated secondary market industrial yields (%)		x		8.70	6.05	6.85
10-year investment-grade corporate spreads (bps)		x		172.6	115.8	148.5
Five-year speculative-grade corporate spreads (bps)		x		481.9	327.8	405.0
Underpriced speculative-grade corporate bond tranches (12-month average) (%)			x	17.4	14.7	14.2
Fed Lending Survey For Large And Medium Sized Firms§			x	(15.9)	(8.5)	1.5
S&P Global Ratings corporate bond distress ratio (%)			x	8.7	7.4	8.0
S&P LSTA Index distress ratio (%)			x	3.3	3.0	4.4
New-issue first-lien covenant-lite loan volume (% of total, rolling-three-month average)			x	67.2	72.8	74.8

Table 2

Indicators Of Financing Conditions: U.S. (cont.)

	Restrictive	Neutral	Supportive	2018*	2017*	2016*
New-issue first-lien spreads (pro rata)		x		--	316.7	275.0
New-issue first-lien spreads (institutional)		x		452.1	346.2	364.6
Amend-to-extend fee (bps)			x	30.0	--	32.5

*Data through Dec. 31. \$Federal Reserve Senior Loan Officer Opinion Survey on Bank Lending Practices For Large And Medium-Sized Firms; through third-quarter 2018. Bps--Basis points. Sources: IHS Global Insight, Federal Reserve Bank of New York, S&P Global Market Intelligence's Leveraged Commentary & Data, and S&P Global Fixed Income Research.

With yields on the 10-year Treasury falling 32 bps over the course of December, the yield curve flattened further, to 27 bps. Historically a harbinger of recessions, this mismatch in borrowing costs finished 2018 at its lowest point in 11.5 years (24 bps). As for the long end of the curve, Treasury yields fell markedly over the fourth quarter, to 2.7% from 3.05%, and if market volatility persists or economic growth concerns continue, we expect the yield on the 10-year to remain subdued. S&P Global economists' baseline forecast is for the 10-year yield to reach 3.5% by the end of the year and rise to an average of 3.6% in 2020.

Lending standards on corporate loans remain easy. According to the Federal Reserve's December Senior Loan Officer Opinion Survey, U.S. bank lending standards for commercial and industrial loans to large and middle market firms remained deep in net easing territory in the third quarter, finishing at -15.9%. This continues the prior six quarters' net loosening after a period of net tightening over the previous six quarters. Domestic banks that reported easing standards once again cited increased competition from other lenders as a reason for easing, while many also cited a more favorable or less uncertain economic outlook, as well as an increased tolerance for risk.

Corporate issuance fell well short after a volatile fourth quarter

Corporate bond issuance in the U.S. reached a total of \$1.1 trillion in 2018, the lowest annual figure since 2012, when bond issuance was \$1.047 trillion. The full-year figure is roughly \$308 billion short of the full-year 2017 figure of \$1.409 trillion, representing an annual decline of 22%. Issuance from both financial services and nonfinancials saw the most pronounced annual declines in recent years, at 13% and 27%, respectively. Among nonfinancials, the investment-grade segment fell by 24% over the course of 2018, while speculative-grade issuance saw an even larger decline of over 46%. Meanwhile, investment-grade and speculative-grade issuance among financial services both fell by just over 15% in 2018. Although corporate bond issuance (across nonfinancials and financial services) fell well short of last year, the very strong levels in 2017 were always going to be difficult to match.

Among rated bonds (roughly 91% of dollar volume in 2018), both the investment-grade and speculative-grade segments saw declines relative to last year, though with a much larger proportional decrease in speculative-grade issuance (see chart 2). In 2018, only \$142.23 billion of speculative-grade issuance came to market--the lowest annual total since 2009's \$118.4 billion. Investment-grade issuance took a dip as well, totaling just \$862.17 billion for the year, the lowest level since 2013. Overall, rated corporate bond issuance is down about 21.2% from 2017, while unrated debt rose marginally, by \$3.3 billion for the year.

Higher borrowing costs for Treasuries and growing investor uneasiness have made their way down to the speculative-grade segment, cutting into demand for speculative-grade paper in the final months of the year. The persistence of skittish markets in light of rising rates and global trade

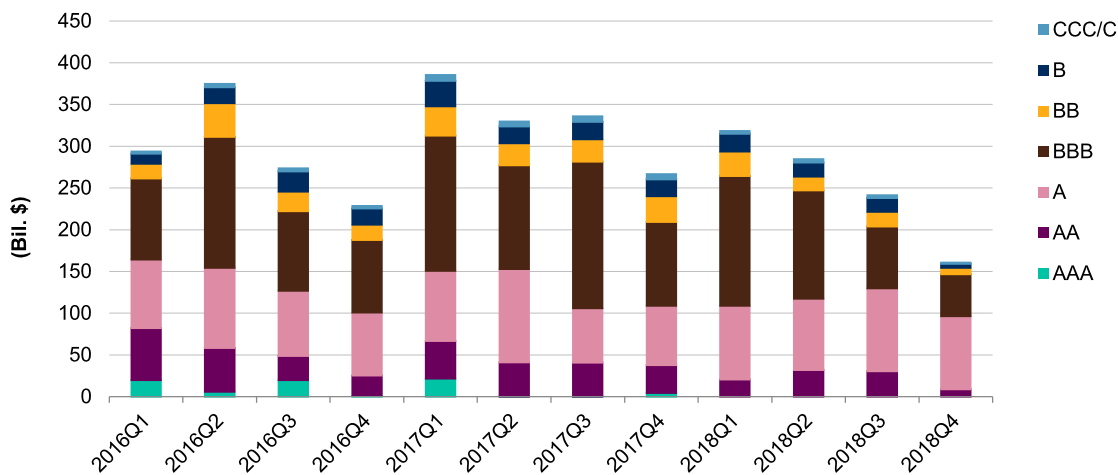
Credit Trends: Global Financing Conditions: Bond Issuance Is Expected To Decline 0.6% In 2019

turbulence pushed investors to seek out investment-grade bonds exclusively for the last 45 days of the year. Speculative-grade bond issuance typically softens in the closing of the year, but issuance in 2018 fell over 76% annually in the fourth quarter to just \$13 billion, the lowest level for any fourth quarter since 2008, when there was just \$1 billion in new-issue volume after the collapse of Lehman Brothers that October.

With their floating-rate coupons, leveraged loans saw some activity toward the end of the year, but even that asset class' issuance was muted amid the larger market sell-off.

Chart 2

Quarterly U.S. Corporate Rated Bond Issuance



Sources: Thomson Financial and S&P Global Fixed Income Research.
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In December, the largest issuer was UnitedHealth Group Inc., with a \$3 billion deal (see table 3). UnitedHealth Group Inc.'s proposed fixed-rate senior unsecured notes were issued in four tranches and assigned a rating of 'A+'. The company will use the debt proceeds to repay commercial paper borrowings and for general corporate purposes. Upcoming capital needs include \$750 million of 1.700% senior notes that mature in February 2019 and \$500 million of 1.625% senior notes maturing in March 2019.

Table 3

Largest U.S. Corporate Bond Issuers: December 2018

Issuer	Sector	(Mil. \$)
UnitedHealth Group Inc.	Insurance	2,990.1
Caterpillar Financial Services Corp.	Capital goods	1,249.7
Eversource Energy	Utility	895.1
Moody's Corp.	Financial institutions	790.3
Sisters of Mercy Health System	Health care	305.4
Benefitfocus Inc.	High technology	200.0

Table 3

Largest U.S. Corporate Bond Issuers: December 2018 (cont.)

Issuer	Sector	(Mil. \$)
The Medicines Co.	Health care	150.0
Morgan Stanley Finance LLC	Banks and brokers	25.9
Bank of America Corp.	Banks and brokers	20.2
Hacienda Senior Villas L.P.	Banks and brokers	18.7
Plaza Patria Court Ltd.	Banks and brokers	17.3
Brandon Place Partners Ltd.	Banks and brokers	15.3
Morgan Stanley	Financial institutions	13.1
Change Financial Ltd.	Banks and brokers	3.1

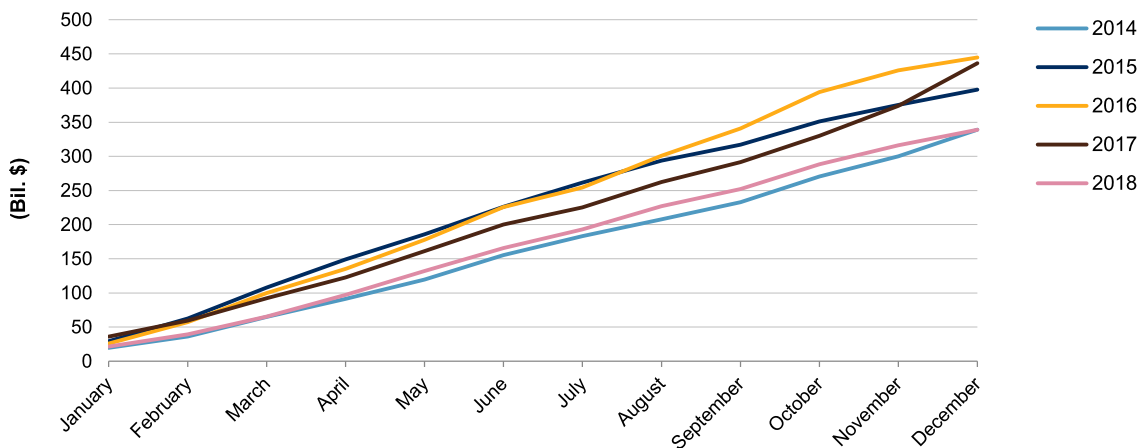
Note: Includes issuance from Bermuda and the Cayman Islands. Sources: Thomson Financial and S&P Global Fixed Income Research.

Muni volume fell after tax reform

The year ended much as it started in 2018, with significantly lower volume than in the same period in 2017. Fourth-quarter issuance was down 40% from 2017, after the first quarter of 2018 was 29% lower. The second and third quarters also had lower issuance in 2018 than in 2017. For the year, all categories except public facilities--a mixed group that includes stadiums, convention centers, and correctional facilities--had less volume in 2018 than in the previous year. The final result was issuance of \$339 billion, the lowest issuance since 2011 and 22% lower than \$436 billion in 2017 (see chart 3).

Chart 3

Annual U.S. Public Finance Bond Issuance



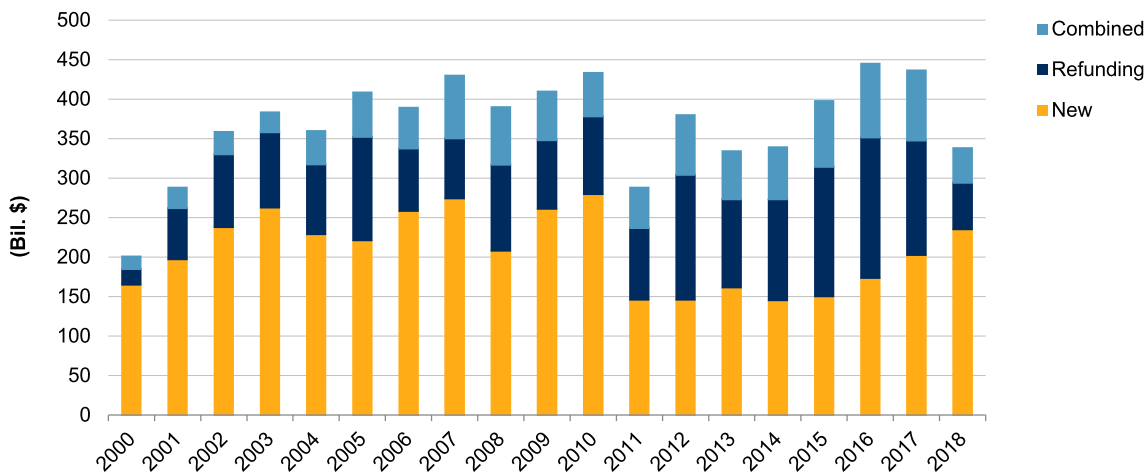
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Credit Trends: Global Financing Conditions: Bond Issuance Is Expected To Decline 0.6% In 2019

The rush at the end of 2017 was one of the main causes of the decline, but S&P Global Ratings believes lower volume will continue under the current tax code. The issuance of new-money bonds in 2018 was its highest since 2010, which may indicate greater demand for investment in roads, bridges, schools, hospitals, water systems, and other assets funded by municipal debt (see chart 4). Yet even with an increase in new-money proceeds of \$33 billion over 2017, overall volume in 2018 fell 24% lower than in the previous year. Without a change to tax law or a significant infrastructure initiative at the federal level, state and local issuance will settle into a lower baseline than over the past two decades.

Chart 4

Municipal Bond Volume By Type



Sources: Thomson Financial and S&P Global Fixed Income Research.

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We expect volume to increase in 2019, but not to the same level as in 2017 and preceding years. Before 2018, the baseline of municipal issuance appeared to be about \$400 billion annually, a figure that the market approached in 2015 and surpassed in 2016 and 2017. In the current legislative landscape, the new standard for municipal volume will likely settle around \$360 billion. Based on typical volume from 2008-2018--adjusting for the outlier months of November 2017 to February 2018, plus a downward adjustment for the loss of tax exemption for advance refunding--we project volume between \$360 billion and \$375 billion. This would be a rebound from the issuance in 2018, which would have been higher if the wave of late activity in 2017 had not taken in volume that would have occurred this year.

The TCJA permanently altered the municipal market in three key respects: 1) Reducing the corporate tax rate to 21% from 35% made the tax exemption of municipal bonds less attractive for corporations; 2) the elimination of the tax exemption for advance refunding bonds cut refunding activity by more than half in 2018; and 3) the cap on the deduction for state and local taxes further impeded the issuance of bonds, whose payment source is usually revenue from taxes. S&P Global Ratings does not expect changes in the tax code to offset these provisions in the near future. Democrats have suggested raising the corporate tax rate to 25%, but no tax increases will likely pass while Republicans control the White House and the Senate. There is even less agreement among Democrats on eliminating the cap on state and local tax deductions because its impact is

significantly greater in a handful of states.

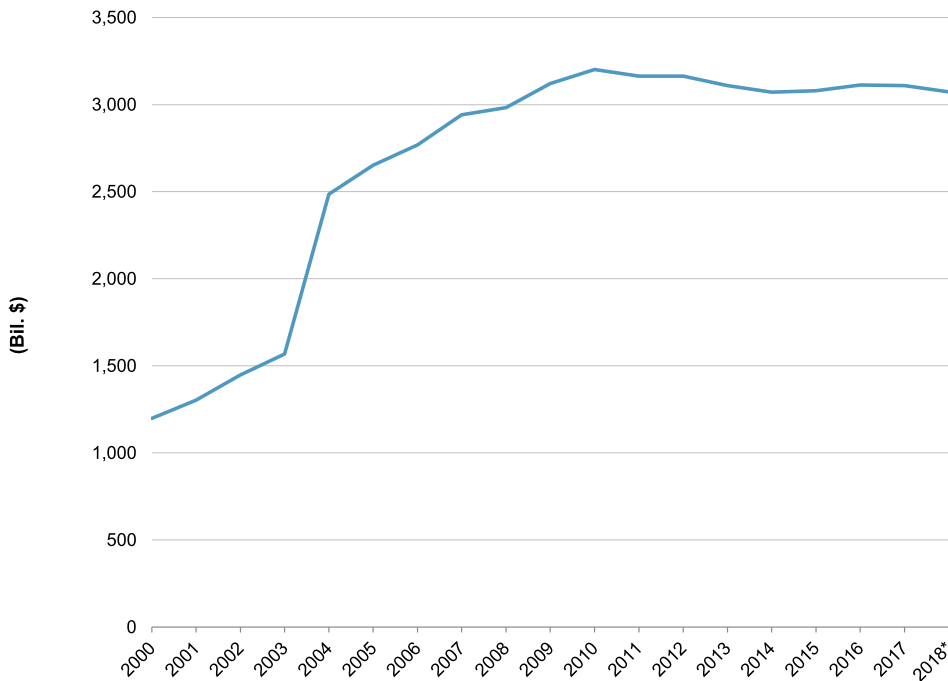
In the short term, the most significant impact of the TCJA in 2018 regarding municipal bonds was the elimination of the tax exemption on advance refunding bonds. These bonds represented \$91 billion of issuance in 2017. Removing this tool brought all refunding activity in 2018 to just \$59 billion, the lowest figure since 2000. Refunding exceeded \$100 billion from 2012-2017. It is possible that refunding activity will return to near its former level once bonds that would have been eligible for advance refunding reach their call date. At this point in a few years, bonds that would have been advance refunded may be refinanced without penalty. However, the lack of advance refunding will delay issuance for refinancing into later years.

The Federal Reserve reports that corporate holdings of municipal bonds declined through the third quarter of 2018. Nonfinancial businesses reported a decline of \$20.3 billion, and private depository institutions were down \$57.5 billion. Property/casualty insurers were unexpectedly higher, by \$30 billion, perhaps because the longer term of municipal bonds, as compared with corporate debt, outweighed their lower effective yields following tax reform. Life insurers were anticipated to add to their municipal portfolios because of favorable tax treatment specific to the sector, and they in fact increased public-sector assets by \$6.6 billion.

The total result of lower volume and the maturing of existing debt reduced the size of the municipal market to less than \$3.1 trillion (see chart 5). The decline through the third quarter is \$36 billion, bringing outstanding issuance to its lowest point since 2014. It is possible that final data for 2018 will show the market closer to \$3.0 trillion, which would be the lowest since 2008. Changes of \$30 billion are not unprecedented, and the market shrunk \$58 billion in 2013.

Chart 5

Municipal Debt Outstanding



*Through Sept. 30. Sources: Thomson Financial and S&P Global Fixed Income Research.
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It is not a coincidence that the market reached its peak in 2010 after the Build America Bond (BAB) program spurred high issuance in 2009 and 2010. BAB was a response to the financial crisis and spurred public-sector funding for infrastructure. Two years into the Trump Administration, there is no momentum for a national infrastructure initiative. The only discussion that has received fleeting attention concerns tax credits to create incentives for jurisdictions to partner with private entities in infrastructure financing. This method would rely less on bond financing, which has been the traditional method of investing in infrastructure. Tax credits would also flow only to profitable revenue-generating projects, leaving out roads and bridges without tolls, schools, public safety facilities, and most public-sector capital assets.

However, the midterm elections gave the Democrats control of the House of Representatives, which could increase the odds of a federal infrastructure initiative. Rep. Peter DeFazio, D-Ore., became the chair of the Transportation and Infrastructure Committee and says he plans to have an infrastructure bill ready for a vote around mid-2019. His proposal would use 30-year Treasury bonds, paid by a roughly 1% increase in gas taxes.

The limit of \$10,000 on federal tax return deductions for state and local taxes (SALT) is the other main impact of the TCJA on municipal finance. S&P Global Ratings has noted several potential effects of the TCJA on municipal credit in "U.S. Tax Reform: Mapping The Potential Winners And Losers By County," published May 7, 2018. These include reduced assessed valuations as homeowners receive lower deductions for property taxes on expensive residences, as well as lower

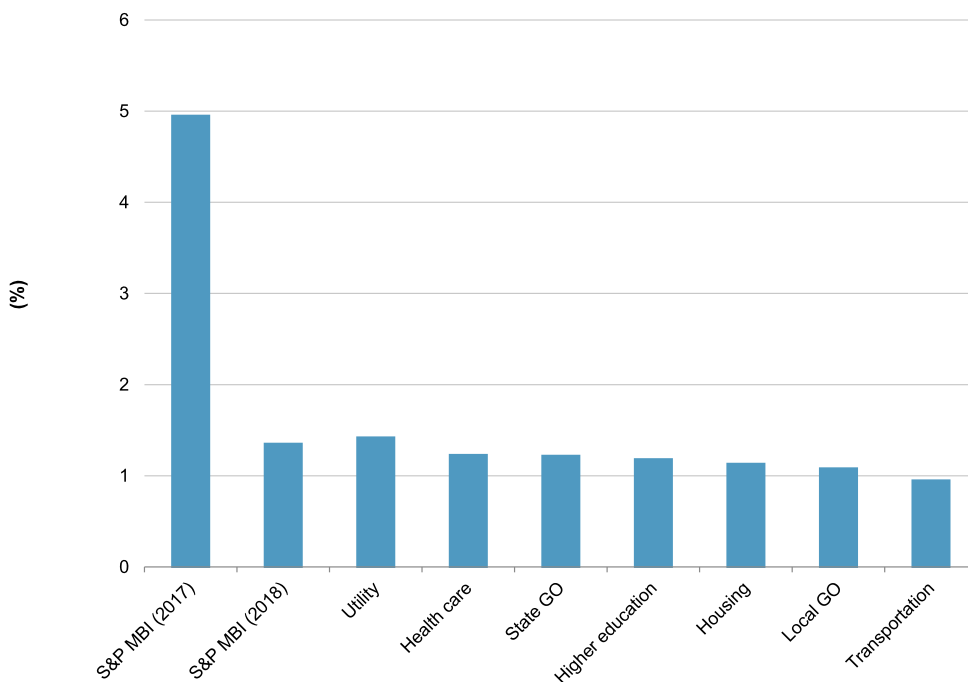
support for taxes in general, particularly in high-cost jurisdictions.

Opposition to the SALT deduction limit is highest in a handful of states like California and New York, where housing costs and taxes are high. S&P Global Ratings lists four states with at least nine counties possibly adversely affected by the SALT cap, along with 17 states with at least 16 counties that might benefit from the change. Given this balance of positively affected states, the cap on SALT deductions may be the most permanent provision of the TCJA to affect municipal bonds. The SALT cap hasn't noticeably manifested yet, but long-term effects could include financial stress on state and local entities and an additional hindrance to the issuance of bonds, debt service on which is usually paid for from SALT.

Municipal returns were positive in 2018, although lower than in 2017. All indexes were up about 1% for the year (see chart 6). Yields declined in late 2018 particularly as investors sought safety in the volatile financial market. Returns were significantly lower than in 2017; that year, yields declined more steadily, with just two months of yield increases and corresponding drops in index values.

Chart 6

S&P Dow Jones Municipal Bond Index Returns



MBI—Municipal Bond Index. GO—General obligation. Source: S&P Dow Jones Indices.
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Tobacco settlement bond issues represented three of the 10 largest transactions of the year. The State of California had two of the biggest deals, and the Denver International Airport's \$2.5 billion transaction was the second largest of the year.

Table 4

Largest U.S. Municipal Issues: 2018

Issuer	(Mil. \$)	Date
New Jersey Tobacco Settlement Finance Corp.	3,146.66	4/4/2018
Denver City and County (Denver International Airport)	2,526.08	8/14/2018
California	2,181.31	3/6/2018
California	2,147.00	4/17/2018
Chicago	2,012.88	12/4/2018
Dormitory Authority of the State of New York	1,781.52	7/11/2018
Dormitory Authority of the State of New York	1,699.59	12/12/2018
Golden State Tobacco Securitization Corp.	1,674.65	6/20/2018
Golden State Tobacco Securitization Corp.	1,674.65	6/20/2018
Texas Water Development Board	1,672.21	9/18/2018

Sources: Thomson Financial and S&P Global Fixed Income Research.

California issuers led with \$68 billion in 2018, but this was 30% lower than in 2017. New York and Texas issuers issued more than \$40 billion in 2018, both down at least 15% from 2017. All states in the top 10 had lower volume in 2018 than in 2017, which was the case for most states.

Table 5

Top 10 States By Bond Sales

State	--2018--		--2017--		Change from previous period (%)
	Rank	Volume (mil. \$)	Rank	Volume (mil. \$)	
California	1	47,829.6	1	68,440.4	(30.1)
New York	2	41,601.9	2	48,871.4	(14.9)
Texas	3	32,607.2	3	42,978.3	(24.1)
Pennsylvania	4	13,324.9	5	21,661.1	(38.5)
Illinois	5	13,073.5	4	21,677.7	(39.7)
Florida	6	12,309.3	6	18,625.0	(33.9)
New Jersey	7	11,260.2	9	12,194.3	(7.7)
Colorado	8	10,549.3	11	11,376.9	(7.3)
Washington	9	9,180.9	13	10,280.6	(10.7)
Ohio	10	8,111.5	7	13,930.7	(41.8)

Sources: Thomson Financial and S&P Global Fixed Income Research.

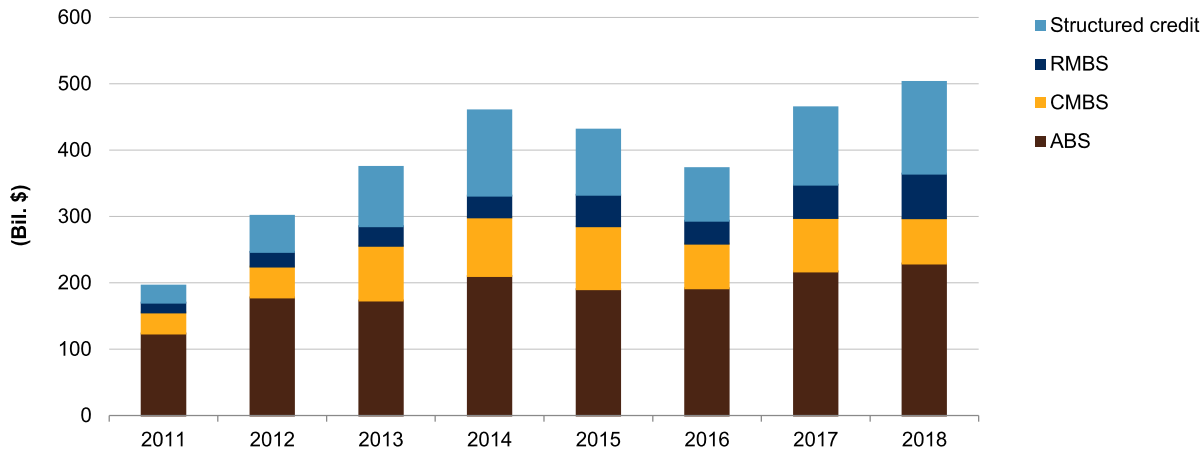
Structured finance issuance could level off in 2019

U.S. structured finance issuance hit a new postcrisis high of about \$500 billion in 2018, up 8% from the previous year (see chart 7). That said, the market posted its largest year-over-year gains early in 2018, with momentum beginning to wane in the fourth quarter. Overall, we expect that U.S. structured finance issuance will be broadly flat in 2019, with growth in RMBS likely offset by a

contraction in CLO issuance.

Chart 7

U.S. Structured Finance Issuance*



*Excludes transactions that were fully retained by the originator and CLO resets and refinancings. Sources: Harrison Scott and S&P Global Fixed Income Research.
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By asset class, the CLO sector posted the highest volume in 2018, at over \$130 billion, although issuance slowed toward the end of the year. Legal developments boosted CLO issuance early in 2018, when courts ruled that regulations on risk retention should not apply to most leveraged loan CLOs. This improved transaction economics for managers, spurring the return of smaller players in particular, and investor demand initially kept up with increasing supply. Amid rising interest rates, one appealing feature of CLOs is that they provide investors with exposure to corporate credit in a floating-rate format.

However, CLO spreads widened somewhat through 2018, and the shrinking gap between underlying loan spreads and the all-in funding cost of CLO capital structures is making it more difficult for CLO managers to structure transactions that are appealing to equity investors. Underlying leveraged loan issuance is a leading indicator of CLO volumes, and there are signs that the rate of loan originations is beginning to decline. The leveraged loan sector has also begun to attract scrutiny from central banks concerned about falling credit standards, with potential implications for financial stability when the credit cycle turns. For these reasons, CLO issuance volumes may moderate in 2019.

Note that our CLO issuance figures generally do not include additional U.S. CLO pricings that take the form of resets and refinancings of legacy transactions. These amounted to \$167 billion in 2017 and a further \$155 billion in 2018. Significant spread tightening on CLO liabilities over the past few years has motivated CLO collateral managers to refinance transactions that they structured when spreads were higher, calling the outstanding securities and reissuing debt with lower coupons. However, there is a declining stock of outstanding transactions for which refinancing makes economic sense, given that CLO liability spreads have recently been widening, so refinancing and reset activity will likely decline significantly in 2019.

In many other sectors—including those backed by lending to consumers—the strength of

underlying credit growth should continue to support U.S. securitization issuance. There is also evidence that "securitization utilization" is on the rise: Outstanding securitization volumes are increasing as a proportion of overall outstanding loan volumes in the corresponding underlying sectors for the first time in over 10 years.

The asset-backed securities (ABS) sector saw modest volume growth in 2018. Issuance was robust across several disparate subsectors, including transactions backed by financings of equipment, shipping, aircraft, and containers, with some originators returning to the securitization market for the first time in several years. The largest traditional ABS subsector--comprising transactions backed by auto loans and leases--grew by nearly 6%, with \$84 billion of issuance. Although U.S. new-auto sales could decline slightly in 2019, we expect continued modest growth in auto ABS issuance as loan originations increase, due to higher used-vehicle demand and rising prices. That said, auto manufacturers are among the securitization originators most likely to see disruption if there is an escalation in trade policy tensions between the U.S. and other countries.

While still an order of magnitude lower than precrisis norms, U.S. nonagency RMBS issuance has generally been strongly rising over the past few years. In 2018, the sector posted its highest volume since 2007. Growth has come not only from traditional subsectors, but also from areas such as credit risk transfer and nonqualified mortgage transactions. After many years following the subprime crisis, during which the majority of U.S. mortgage loans were funded via government-sponsored enterprises, there is now a growing appetite for distributing residential mortgage risk once again through private-label securitizations. In 2019, continued readoption of securitization as a funding tool among mortgage lenders could lead to further growth in RMBS issuance, particularly in the nonqualified mortgage segment.

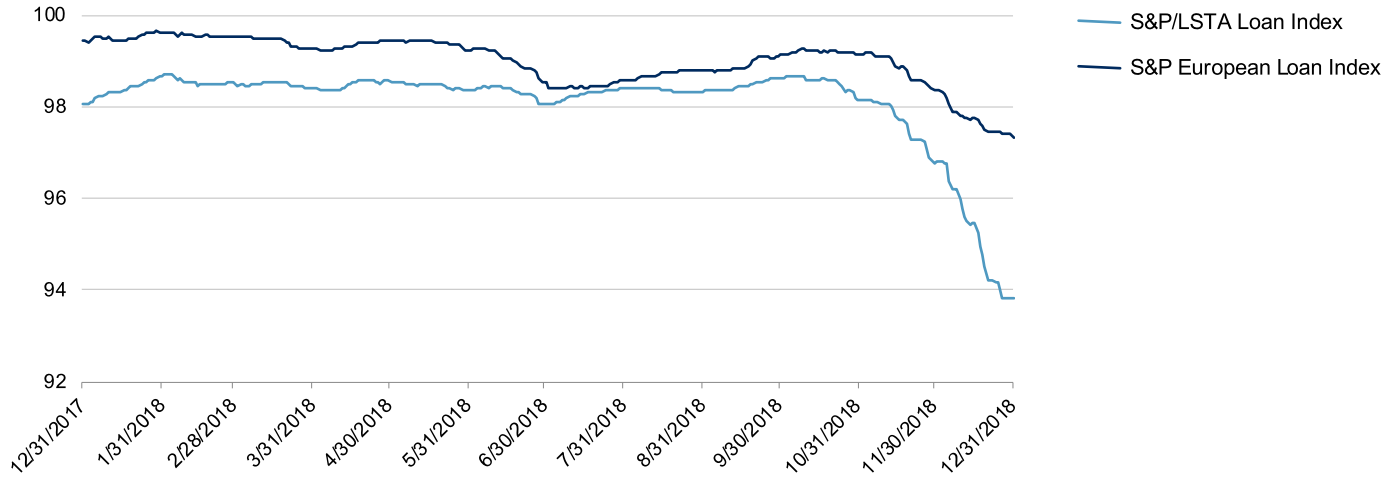
Leveraged Loans Weathered Year-End Better But Still Faced Challenges

Leveraged loans got tangled in the broad market sell-off in the fourth quarter that likewise pressured the high-yield bond and equity markets. Investors, shifting to risk-off mode, pulled cash from the asset class, leaving the new-issue machine--which otherwise operated unfettered in 2018--in a bind. Global institutional loan supply for the quarter was \$88 billion (€77 billion), the lowest since first-quarter 2016. It was down 19% from the prior quarter and down 48% from second-quarter 2018's \$169 billion (€141 billion).

The negative spin crushed the secondary markets, particularly in the U.S., where the weighted average bid of the S&P/LSTA Leveraged Loan Index (LLI) closed the year at 93.84, down 477 bps for the quarter and 421 bps for the year. Market value return for the LLI was negative 3.0% for December alone--accelerating losses after November's negative 1.4% return and marking the weakest single month since 2011. Market value return for the quarter was negative 4.9%, dragging the fourth-quarter total return down to negative 3.5%. For all of 2018, the market managed a positive 0.4% return, after a full year of interest income propped up the fourth-quarter swoon.

The European market fared slightly better, as the S&P European Loan Index (ELLI) shed just one point in December, to 97.33, from November's close of 98.34. The ELLI had a market value return of negative 1.9% for the fourth quarter and negative 2.4% for the full year. Its total return was negative 1.0% in the fourth quarter and a positive 1.3% for the year.

Chart 8

Weighted Average Bid

Sources: LCD, an offering of S&P Global Market Intelligence, and S&P/LSTA Leveraged Loan Index.
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Despite the market uncertainty and year-end volatility, the flexibility of the leveraged loan market helped to bring total new-issue volume for 2018 to an impressive \$733 billion (€616 billion). That is the third-largest annual volume in the 20-year history of S&P Global Market Intelligence's Leveraged Commentary & Data (LCD) and only \$54 billion (€86 billion) behind 2017's record-setting \$787 billion (€702 billion). However, the market, particularly in Europe, sounded a far more dour note at the end of the quarter than at the start of it.

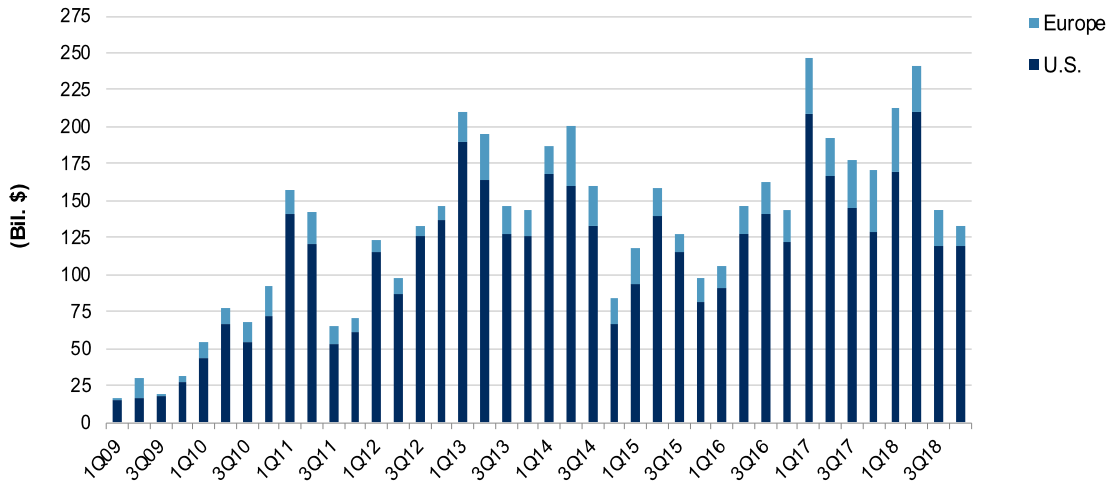
Of the risk assets, loans were the slowest to react to the deteriorating conditions, making a strong start to the fourth quarter, only to stutter as a falling secondary dragged volumes lower and led pricing higher. Both the U.S. and Europe turned sharply bearish over these three months, but throughout the year, Europe lagged the U.S. Loan syndication troubles could be seen prior to the summer break, when an overburdened market ran into difficulties as accounts struggled to cope with the sheer weight of supply on offer.

In June and July, new issuance in Europe did reach €18.6 billion, but 70% of flexes moved pricing wider during the latter month in order to support that volume. September in Europe was strong off the back of jumbo cross-border syndications from Refinitiv and Akzo Nobel Specialty Chemicals, and the number of deals that saw pricing flex higher eased. Nonetheless, despite a resurgence of upward price flexes during the quarter, European loan volume flagged, closing out the quarter at \$14 billion (€13 billion), 40% below third-quarter 2018, which produced a total volume of \$24 billion (€21 billion).

Supported by different dynamics, the U.S. market fared better. Fourth-quarter new issuance hit a three-year low of just \$119 billion (€\$104 billion), but that volume was roughly on par with the third quarter and with the last quarter of the prior two years.

Chart 9

Global Leveraged Loan Volume



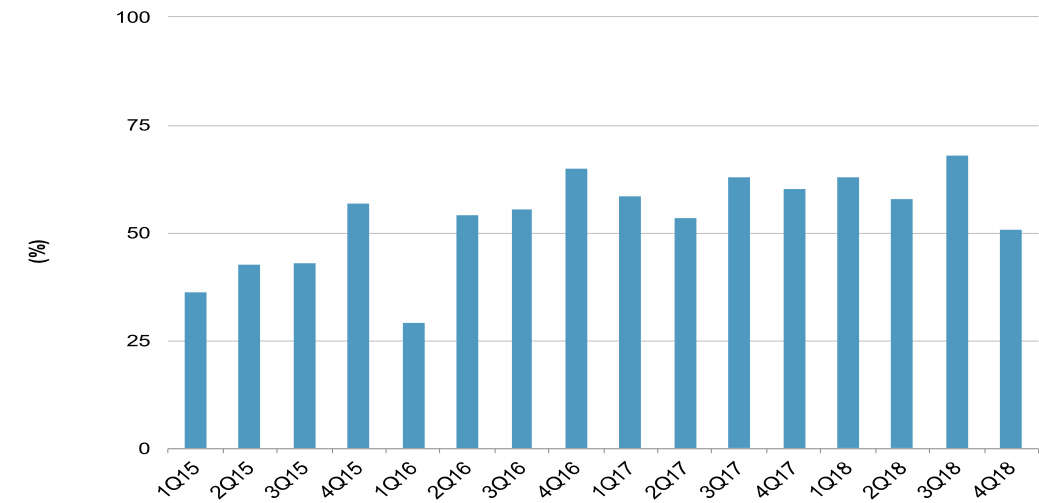
Source: LCD, an offering of S&P Global Market Intelligence.
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Pro rata issuance played a significant part in that market's strength, representing 36% of U.S. new issuance, its strongest showing in three years. Admittedly, much of that volume resulted from refinancings; however, it did include Colfax's \$3.0 billion acquisition of DJO Global, which was 100% based on pro rata (\$1.3 billion revolver and \$1.7 billion in term loan A) and Quad/Graphics' \$2.1 billion acquisition of LSC Communications, which included \$1.6 billion of pro rata (\$800 million revolver and \$825 million delayed term loan).

Meanwhile, pro rata's resurgence pushed covenant-lite out of its starring role in the loan market. Cov-lite issuance fell to 51% of fourth-quarter U.S. new-issue volume, its lowest level since the fourth quarter of 2015, when the market was struggling through the spike in defaults from the oil and gas sector.

Chart 10

Covenant-Lite Share Of U.S. Volume

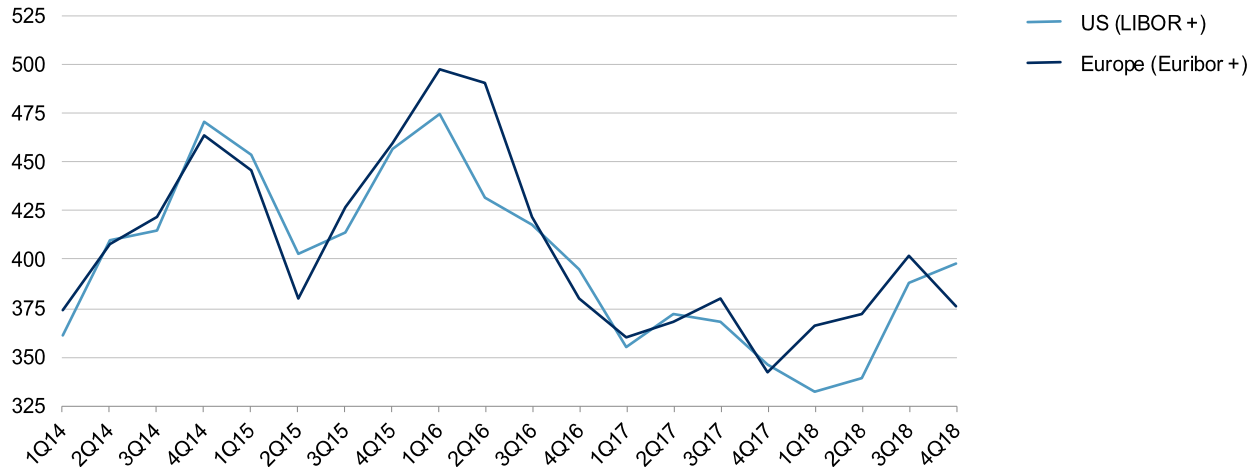


Source: LCD, an offering of S&P Global Market Intelligence.
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Pricing mechanisms were key to successful deal formation in the fourth quarter. Richer pricing brought lenders to the table, particularly in the U.S., where the weighted average institutional spread ended the year at 474 bps, rising 97 bps in the quarter and 65 bps in December alone (the largest single-month gain since fourth-quarter 2015). In the more sluggish European market, the average institutional spread ended the year at 376 bps, only 4 bps higher for the month and down 26 bps for the quarter. For all of 2018, spreads ended the year 128 bps and 34 bps higher in the U.S. and Europe, respectively. However, in both markets, spreads widened over the course of the year, with the U.S. up 128 bps--the largest single-year increase since the credit crunch--and Europe up 34 bps.

Chart 11

Average Institutional Spread



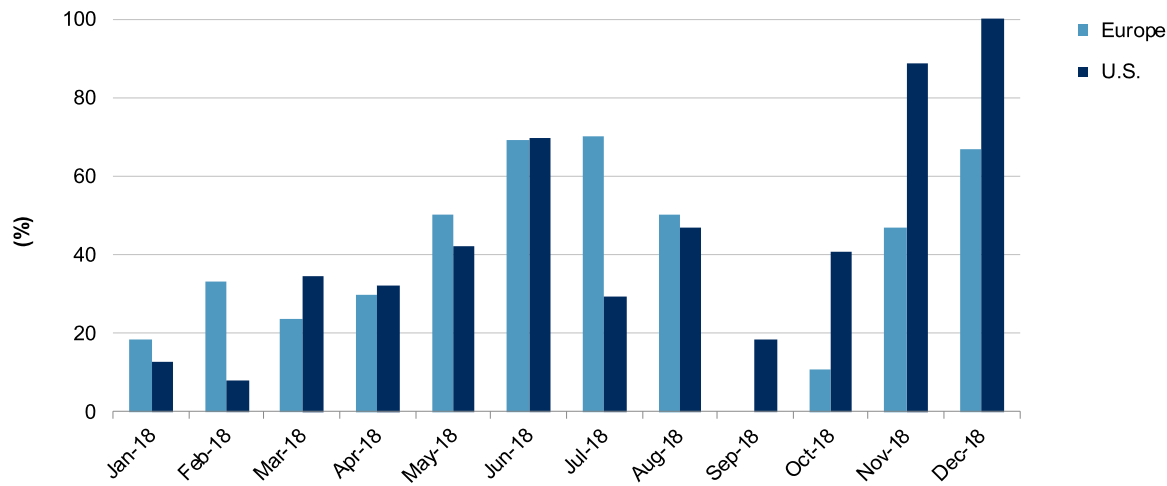
Source: LCD, an offering of S&P Global Market Intelligence.
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Flex pricing played a big part in balancing out supply and demand during syndication, particularly in the U.S. It was a key element of pricing moving in favor of U.S. investors over the quarter, especially in December, as a full 76% of deals were revised wider--the largest such share since October 2015. On the flip side, pricing didn't tighten on a single deal; that hasn't happened during a month since the end of the credit crunch.

The pricing trend in Europe was less stark, as 17% of deals flexed wider in the fourth quarter, versus 23% in the third quarter (bearing in mind that fourth-quarter deal flow was weak). Overall, in 2018, flexes to widen pricing were consistently more common in European deals as arrangers struggled to maintain deal flow.

Chart 12

Percentage Of Institutional Flexes Moving Wider



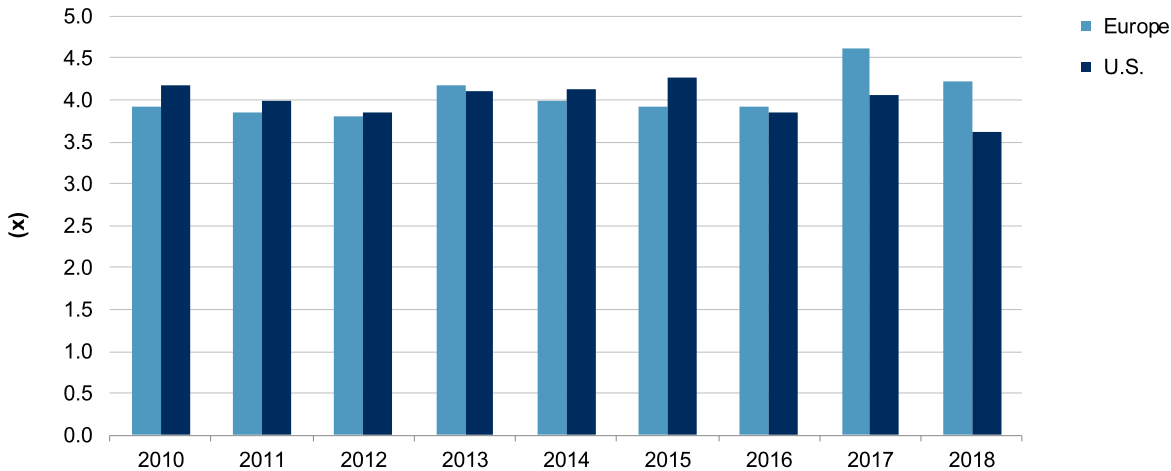
Note: Reflects percentage of all flexes done in each month that moved spreads higher. Source: LCD, an offering of S&P Global Market Intelligence.
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Despite the general resilience of market volume in the fourth quarter, the key driver of market volatility, rising credit risk, was unchanged. Leverage ratios continued to rise, as did purchase price multiples, and coverage ratios eroded.

Of course, as market conditions change, arrangers use pricing to balance out supply and demand. However, the fundamental structures of transactions that are on deck are harder to adjust to changing market dynamics. As a result, over the course of the fourth quarter, pricing got richer to draw in investors, but credit statistics continued to reflect a more bullish market.

Chart 13

Average Pro Forma Debt/EBITDA



Source: LCD, an offering of S&P Global Market Intelligence.
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In the U.S., the average total debt multiple in December rose to 5.5x, a little more than a quarter-turn higher than the November average of 5.2x. This is still below the July 2018 peak of 5.7x, when a slew of mergers and acquisitions came to market, but it is also 0.4x higher than the prior-year comparable of 5.1x. Leverage for the fourth quarter in whole was 5.3x, down from the 5.5x in the third quarter, with its surge of jumbo buyouts, but up from 5.0x in the first half of the year and from 2017.

At the same time, coverage fell below the 3.0x threshold, to 2.7x for December. This compares with 3.2x in November and 4.4x at the start of the year. Coverage in the fourth quarter was 3.2x, better than the third quarter's 3.0x but still a half-turn below the 3.7x from the first half of 2018 and 2017's 4.0x.

In Europe, the average total debt multiple on a lagging 90-day basis was 5.5x for December, versus 5.4x for November's reading and 5.4x at the end of 2017. Interest coverage for 2018 was down from the prior year--4.2x for 2018 versus 4.6x for 2017. However, unlike in the U.S., annual coverage levels in Europe have steadily trended higher.

Credit quality concerns chased retail investors from the U.S. loan market as loan funds experienced withdrawals of \$10.4 billion in December, with \$3.2 billion of that from the week ended Dec. 26. Prime funds experienced outflows every month during fourth-quarter 2018--something not seen since the middle of 2016.

How this positions the market for 2019 remains an open question. The U.S. default rate is at historic lows--just 1.6% for 2018 on a par amount basis. Though retail demand has flagged, the capacity of existing CLOs in their revolving period is more than adequate to support a healthy market.

The widening of primary spreads and the fallback in secondary prices create fertile opportunities for investors. Opportunities to invest in deals at prices that look uniquely rich will clearly bring lenders to the market and keep them engaged.

European Financing Conditions Remain Stable But Will Likely Tighten As The Year Progresses

Financing conditions in Europe have generally been supportive for lenders for the past three years, and despite numerous risks, they have remained unflinchingly stable as well. That said, market volatility spiked on both sides of the Atlantic in December and produced some noticeable reactions in corners of fixed income markets, raising our assessment of some measures of financing conditions to more neutral levels (see table 6). Global economic growth is facing headwinds via the prolonged trade conflict between China and the U.S., and negotiations between the U.S. and Europe are not completely over either. Most significantly, Europe has yet to resolve the upcoming Brexit process and the nature of the British withdrawal. Many of these factors are not new, but their persistence is clearly weighing on market sentiment.

S&P Global economists' eurozone GDP growth forecast is 1.6% for both 2019 and 2020. This is a slight reduction from the first- and second-quarter forecasts but still reflects a solid, if plodding, regional economy. This downward revision adds to the negative outlook of our base case scenario for future bond issuance, which currently now assumes the U.K. and eurozone will be forced to extend the March deadline for Brexit, although recent British parliamentary votes have slightly raised the possibility of a "hard" exit. While an extension should avoid any calamitous outcome in the near term, it adds to longer-term uncertainty.

The ECB is expected to begin raising interest rates in the third quarter of 2019 and to leave negative interest rates behind with another hike in December. This should extend the period of diverging interest rates between Europe and the U.S. for the next nine months or so, putting near-term pressure on the euro and artificially suppressing our dollar-based issuance totals to some extent in the coming months. Meanwhile, the expected unwinding of quantitative easing is not expected to begin until 2021, after all TLTROs are paid off. The need for banks to find alternative funding sources for these loans will begin sooner, which could support bond issuance among financial services later in the year.

Table 6

Indicators Of Financing Conditions: Europe

	Restrictive	Neutral	Supportive	2018*	2017*	2016*
Three-month euro-dollar deposit rates (%)	x			2.85	1.75	1.10
ECB Lending Survey of Large Companies§			x	(7.10)	(4.33)	(2.56)
Yield to maturity of new corporate issues rated 'A' (%)			x	1.53	3.05	2.81
Yield to maturity of new corporate issues rated 'B' (%)			x	--	5.68	7.23
European high-yield option-adjusted spread (%)†		x		5.06	2.79	3.78
Underpriced speculative-grade corporate bond tranches (12-month average) (%)		x		29.2	20.1	31.0
Major government interest rates on 10-year debt			x			
S&P LCD European Leveraged Loan Index distress ratio (%)			x	2.81	1.17	2.86
Rolling-three-month average of all new-issue spreads: RC/TLA (Euribor +, bps)			x	293.3	329.2	396.9

Table 6

Indicators Of Financing Conditions: Europe (cont.)

	Restrictive	Neutral	Supportive	2018*	2017*	2016*
Rolling-three-month average of all new-issue spreads: TLB/TLC (Euribor +, bps)			x	375.8	342.3	379.8
Cov-lite institutional volume: share of institutional debt (%; rolling-three-month average)			x	61.7	79.3	70.7

*Data through Dec. 31. §European Central Bank Euro Area Bank Lending Survey for Large Firms; third-quarter 2018. †Federal Reserve Bank of St. Louis. Bps--Basis points. Sources: IHS Global Insight, ECB, S&P Global Market Intelligence's Leveraged Commentary & Data, and S&P Global Fixed Income Research.

The most recent ECB Bank Lending Survey, released in December, showed that European bank lending standards for loans and credit lines to large enterprises eased again in the third quarter as loan demand increased. The third quarter's net easing reading of -7.1 marks the 19th straight quarter of net loosening for large firms and was in line with expectations.

Similar to what banks reported in the Fed's bank lending survey for the third quarter, respondents in the ECB survey reported the net easing of standards was largely influenced by competitive pressures and banks' risk perceptions. Net demand for loans to enterprises increased to 12% in the third quarter from a 16% increase in the second quarter. Driving this increase were inventories and working capital, mergers and acquisitions, and the general level of interest rates. Looking ahead, banks interviewed for the survey expected lending standards on loans to enterprises to remain broadly unchanged in the fourth quarter.

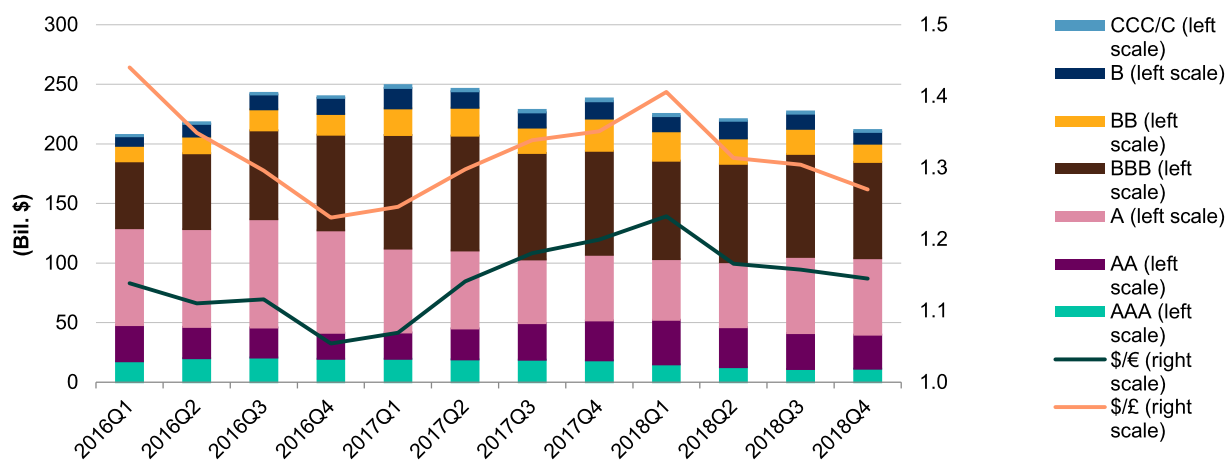
European corporate bond issuance fell short in 2018

As in the U.S., corporate bond issuance in Europe was low in December, contributing to a drop-off in 2018, with just \$1.13 billion coming to market, down from \$1.28 billion in 2017 and marking the second-lowest level in the past seven years. Declines throughout the year were seen in both the investment-grade and speculative-grade segments (see chart 14). However, the larger area of distinction between 2018 and 2017 was in overall financial issuance, which dropped to \$725 billion from \$830.8 billion.

Investment-grade bond issuance reached \$739.1 billion in 2018, down modestly from the \$777.2 billion recorded in 2017. Speculative-grade issuance in Europe fell by a significantly wider margin, at just \$107 billion in new-issue volume in 2018, compared with \$175 billion in 2017. This also marks the lowest annual speculative-grade total since 2012, during the Greek sovereign crisis, when just \$75.8 billion came to market. Like the U.S., Europe went without a speculative-grade bond offer in December--for the first full month since December 2011. Subsequently, the investment-grade-rated share of total corporate bond issuance rose to 65.5% in 2018 from 60.7% in 2017, while the speculative-grade bond share fell to its lowest level since 2012, at 9.5% in 2018.

Chart 14

Quarterly European Rated Corporate Bond Issuance



Note: Issuance data expressed as rolling-four-quarter averages. Sources: Thomson Financial, IHS Global Insight, and S&P Global Fixed Income Research.

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Despite a challenging debt market in December, SAP SE managed to issue a record-setting €4.5 billion Eurobond in December (see table 7). The transaction was met with strong investor demand, being oversubscribed and largely allocated to long-only investors. The company plans to use the proceeds for its intended acquisition of Qualtrics International Inc.

Table 7

Largest European Corporate Bond Issuers: December 2018

Issuer	Country	Sector	(Mil. \$)
SAP SE	Germany	High technology	5,072.3
NXP B.V.	Netherlands	High technology	1,998.5
ING Groep N.V.	Netherlands	Banks and brokers	1,124.1
Dudgeon Offshore Wind Ltd.	U.K.	Utility	891.6
Gazasia Capital S.A.	Luxembourg	Oil and gas	576.7
Credit Agricole S.A. (London Branch)	U.K.	Banks and brokers	567.2
Milione SpA	Italy	Banks and brokers	340.8
CYBG PLC	U.K.	Banks and brokers	318.2
CITIC Securities Finance MTN Co. Ltd.	British Virgin Islands (U.K.)	Financial institutions	298.7
Almirall S.A.	Spain	Health care	283.6
Guangzhou Metro Investment Finance BVI	British Virgin Islands (U.K.)	Financial institutions	198.9
Wetherby II Sec 2018 Dac	U.K.	Banks and brokers	180.3
Greenland Global Investment Ltd.	British Virgin Islands (U.K.)	Financial institutions	151.2
AarhusKarlshamn AB	Sweden	Consumer products	122.1

Table 7

Largest European Corporate Bond Issuers: December 2018 (cont.)

Issuer	Country	Sector	(Mil. \$)
Nederlandse Waterschapsbank	Netherlands	Financial institutions	112.3

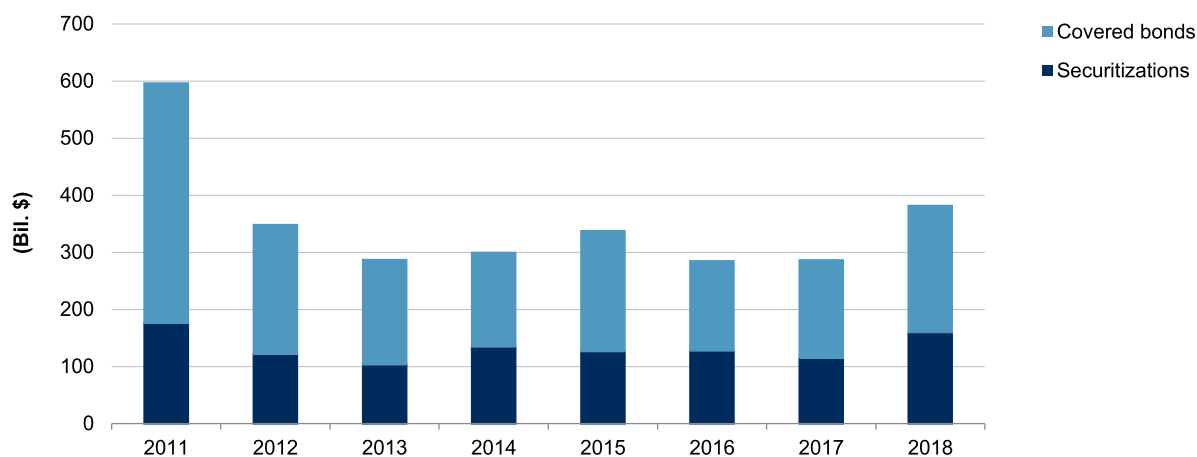
Sources: Thomson Financial and S&P Global Fixed Income Research.

Uncertainty over new regulations could signal a pause in securitization issuance

In 2018, investor-placed European structured finance issuance--including both securitizations and covered bonds--was up by more than 30% year over year, reaching a volume of about \$380 billion (see chart 15). The greatest growth was among securitizations, with \$160 billion, representing a 40% increase on the previous year and a multiyear high. Covered bond issuance was also up significantly, by nearly 30% year over year.

As in the U.S., CLO volumes were particularly robust in Europe, with issuance doubling compared with 2017. The upward trend has been partly due to U.S. managers issuing debut transactions backed by European collateral, taking advantage of buoyant market conditions. Auto ABS issuance also bounced back strongly after a weak patch early in the previous year, with nearly \$30 billion issued in 2018. Meanwhile, Dutch issuers returned to both the securitization and covered bond markets, placing \$28 billion of debt in 2018, up by a third compared with a year earlier. Finally, the CMBS sector showed renewed signs of life after being largely dormant for the previous two years.

Chart 15

European Structured Finance Issuance*

*Excludes transactions that were fully retained by the originator and CLO resets and refinancings. Sources: Harrison Scott and S&P Global Fixed Income Research.

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The beginnings of normalization in monetary policy have likely helped spur issuance. Some banks have returned to structured finance for the first time in several years, as cheap, crisis-era funding schemes from central banks have now been closed to new drawdowns for some time, and the maturities for these borrowings are on the horizon. Provided central banks do not launch similar replacement schemes, bank issuers should have a renewed incentive to once again tap debt markets as they plan for the gradual run-off of this official sector term funding. And given the prospect of eventual rate increases, the floating-rate nature of most European securitizations could be raising the appeal of the asset class for an increasing number of investors.

However, some of the 2018 volume growth might have been due to a front-loading effect, with issuance potentially set to stall through the early months of 2019. Lingering uncertainties over a new regulatory regime for European securitizations could have created incentives for some originators to bring transactions to market ahead of the Jan. 1 effective date and could lead to a pause in issuance in early 2019. In addition, as the ECB gradually tapered its net asset purchases throughout 2018, structured finance spreads widened. Some originators may therefore have brought planned issuance forward to take advantage of still-favorable market conditions before the ECB's net asset purchases stopped altogether at year-end.

Transactions have had to comply with the EU's new Securitization Regulation since the beginning of 2019. As well as introducing preferential treatment for so-called simple, transparent, and standardized (STS) transactions, the regulation also revamps rules regarding risk retention, investor due diligence, and disclosures, which apply to all securitizations. Drafts of various technical standards that clarify the new rules are at different stages of the approval process. However, significant elements of this guidance and the market infrastructure envisaged in the regulations are not yet complete, even though the new rules came into effect on Jan. 1, 2019. Given the uncertainty this creates and the threat of significant sanctions for noncompliance, many originators may be reluctant to come to market until there is greater clarity.

For the disclosures element in particular, it will likely take market participants some time to adapt their business processes and reporting systems to comply first with the transitional arrangements and ultimately with the final requirements. On Nov. 30, the joint European Supervisory Authorities published a statement acknowledging these practical issues and saying that regulators would enforce the newly applicable legislation in a proportionate and risk-based manner, potentially taking into account disclosures that originators already make in other formats. On the same day, the European Commission asked regulators to consider certain revisions to the draft standards. However, it remains to be seen whether this will allay concerns sufficiently to prevent a pause in issuance. If not, some originators may substitute covered bond issuance to meet their secured funding needs, but others may look to alternatives outside the structured finance market while the new regulations bed down.

There are also some caveats regarding the scale of European structured finance issuance growth in 2018, given exchange rate effects. During the first half of 2018, the euro was significantly up year over year against the U.S. dollar, at times by as much as 15%. With around three-quarters of European structured finance issuance denominated in euros, this helped inflate the 2017-2018 issuance growth rates that we present here, which are based on volumes translated into U.S. dollars at exchange rates prevailing at the time of issuance. However, since April 2018, the euro has been broadly weakening and is now nearly 10% below the highs of early 2018. If exchange rates remain at these levels or the euro weakens further, this will act as a headwind for our reported dollar-equivalent issuance growth rates in 2019.

Our issuance figures in this report do not include European CLO refinancings and resets, which accounted for nearly \$30 billion in 2017 and more than \$24 billion in 2018.

Trade Disputes And Higher U.S. Rates Cut Into Emerging Markets Issuance

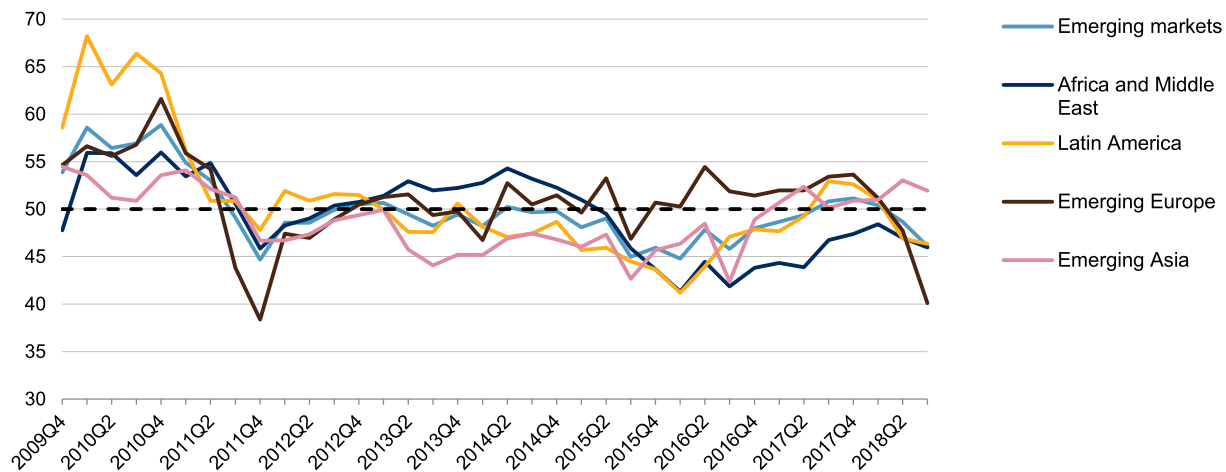
After a brief spell in easing territory earlier in the year, financing conditions in emerging markets remained in tightening territory in the third quarter, consistent with expectations for declines from the second-quarter Institute of International Finance (IIF) survey. The nonperforming loans subindex once again suffered the greatest decline, led by the large decline within emerging Europe, which fell 15.3 points, to 40.

In their fourth-quarter forecast updates, S&P Global economists in Latin America and Asia-Pacific generally maintained their positive outlooks for emerging market economic prospects in 2019 but noted increasing downside risks. However, they have once again lowered their GDP forecasts, relative to the prior three quarters, given a sluggish start to 2019, as well as heightened risks surrounding global trade and monetary policy. This is in line with banks surveyed in the IIF's Lending Conditions Survey during the third quarter, which expect external political risk to remain elevated, especially with regard to U.S. trade and monetary policies. S&P Global economists are also cognizant of political risk in Brazil and Mexico. Upside risk has risen in Brazil, while downside risk associated with recent political developments has increased in Mexico, though neither shift has induced any material changes to the economic forecast.

In the third quarter of 2018, the IIF Lending Conditions Survey for emerging markets once again reflected deteriorating lending conditions, with an overall reading of 46.1, from 48.6 in the prior survey. This index is a diffusion index, meaning readings below 50 indicate a tightening of bank lending conditions and those above 50 imply loosening conditions. For the fourth quarter, lending conditions are expected to improve but remain restrictive. Typically, expectations for the next quarter's reading are higher than what is eventually reported, by about two points. Emerging Asia was the only region to experience loosened financing conditions (a reading of 51.9). This was the second quarter in a row to see an overall tightening reading, after three quarters of loosening (see chart 16). All of the five topical subindices that make up the lending index fell into restrictive territory in the third quarter, led by nonperforming loans.

Chart 16

IIF Emerging Markets Bank Lending Conditions Indices

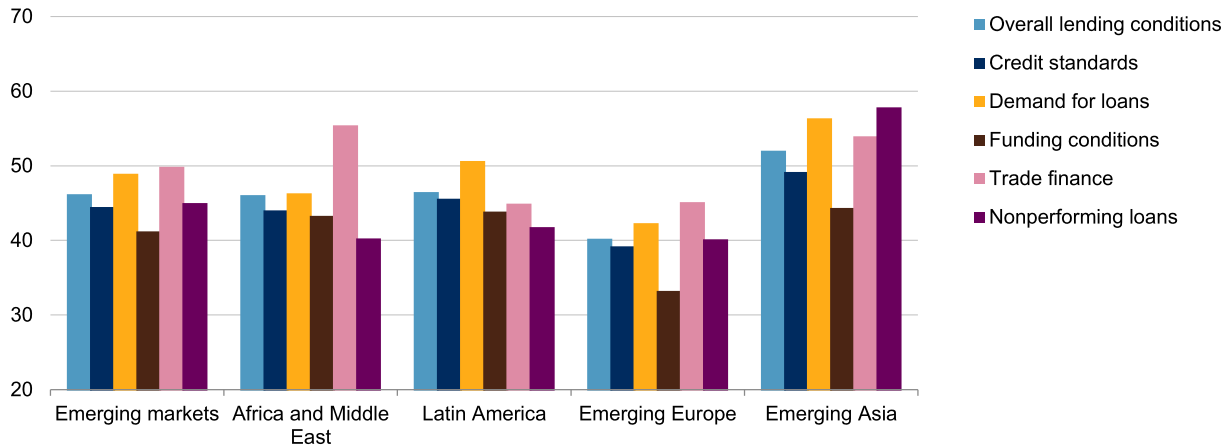


Sources: IIF and S&P Global Fixed Income Research.

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Relative to the second-quarter survey, nearly all emerging market subregions saw declines across nearly every component of the index in the third quarter. Broadly speaking, the exception to the general decline was the emerging Asia region, with emerging Europe at the other end, having experienced the harshest declines (see chart 17). For the fourth quarter, emerging Europe and Latin America are expected to show the greatest improvements in lending conditions.

Chart 17

**IIF Emerging Markets Lending Conditions Index By Subcategory And Subregion:
Third-Quarter 2018**

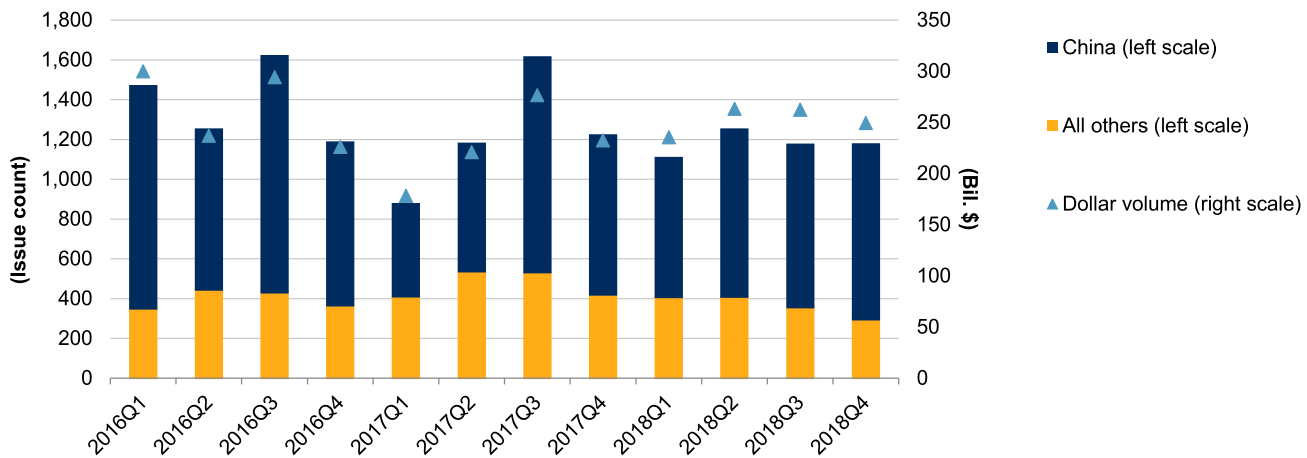
Sources: IIF and S&P Global Fixed Income Research.

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Because China dominates emerging Asia's issuance and Brazil heavily influences Latin America's, conditions in these countries tend to have a disproportionate effect on their respective regions' issuance totals. Since the early days of the Trump Administration, trade policies and their implications for the Asia-Pacific region and China in particular have been a point of concern for their potential to lead to increased market volatility or to drag economic activity. Currently, potential trade and investment frictions are at the top of S&P Global economists' concerns for 2019, and slower economic growth is expected in the coming years for China. For the time being, markets are somewhat optimistic. On Jan. 7, 2019, the Trump Administration sent a delegation of trade representatives to speak with Chinese officials. While there has been no clear outcome from these meetings at this time, the outlook is positive that the countries will be able to reach a deal within the agreed-upon time frame.

Corporate bond issuance in China has grown quickly in recent years, despite government actions aimed at deterring growing debt levels (see chart 18). Overall corporate bond issuance in emerging Asia increased by roughly 11.3% in 2018, reaching \$1 trillion in dollar volume, but the issue count declined 3.7% in 2018, to 4,709 new issues for the year. China has accounted for 77.9% of 2018's dollar volume and 68.9% of the number of issues, up from 74.1% and 61.2%, respectively, in 2017.

Chart 18

Quarterly Emerging Asia-Pacific Corporate Bond Issuance

Sources: Thomson Financial and S&P Global Fixed Income Research.

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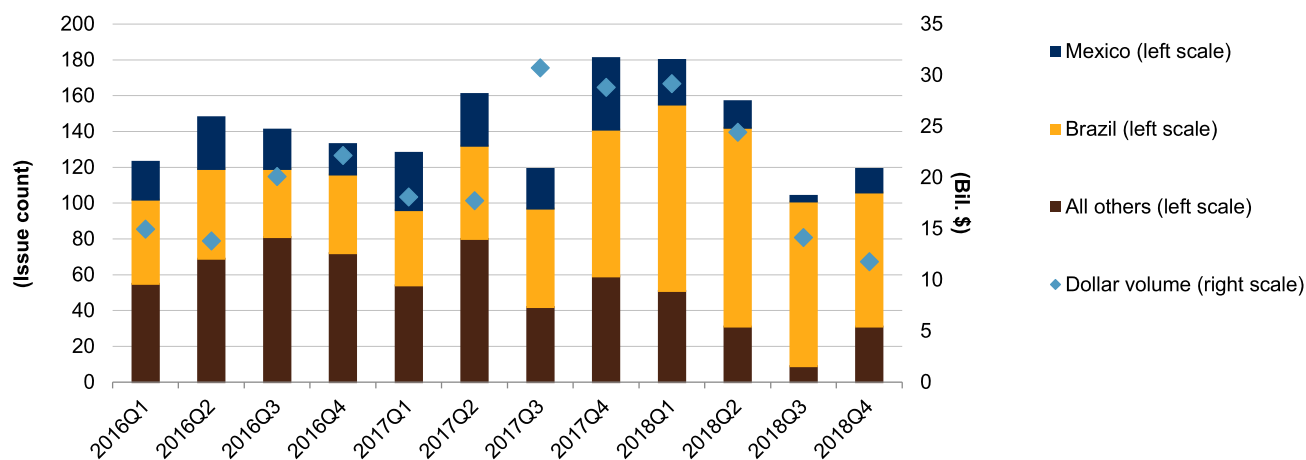
For the third time in 2018, S&P Global economists reduced their baseline economic forecasts for the Latin American region, once again largely as a result of deteriorating external factors, such as tighter global monetary policy, slowing global economic growth, and the continuing trade conflict between the U.S. and China. They have lowered their expectations for real GDP growth to 1.7% from 1.8% in 2019 for Latin America as a whole (see "Latin American Economies Will Face Another Challenging Year In 2019," Nov. 30, 2018).

Regional headwinds mentioned earlier have clearly cut into corporate bond issuance in the region, resulting in the fewest new issues coming to market since the height of the global financial crisis in the fourth quarter of 2008. Corporate bond issuance in Latin America steadily grew in 2017 after declines in previous years. This momentum--especially in Brazil--generally continued through the first half of 2018, but the overall trend took a turn in the last half of the year (see chart 19).

Issuance in Latin America contracted noticeably in 2018, falling 16.7% to \$79.4 billion, with just 560 new issues for the year, compared with 589 new issues in 2017. Corporate bond issuance out of Brazil rose to its highest level since 2014, accounting for over half (54%) of face value debt out of Latin America in 2018, totaling \$42.9 billion for the year. In terms of issue count, Brazil accounted for 68.2% of new issues in 2018, with 382 for the year.

Chart 19

Quarterly Latin American Corporate Bond Issuance



Sources: Thomson Financial and S&P Global Fixed Income Research.

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Despite declines in developed markets in December, bond issuance within emerging markets was relatively stable for December, finishing at \$68.9 billion. This is up relative to December 2017 (\$60.7 billion) and December 2016 (\$60.4 billion). And despite still-rising tensions between the U.S. and China on the trade front, all of the largest issuers in emerging markets during December were from China (see table 8).

Table 8

Largest Emerging Markets Corporate Bond Issuers: December 2018

Issuer	Country	Sector	(Mil. \$)
Ping An Bank Co. Ltd.	China	Banks and brokers	5,074.8
China Development Bank Corp.	China	Banks and brokers	2,404.1
China Huarong Asset Management Co.	China	Banks and brokers	1,450.6
Beijing Haidian District	China	Banks and brokers	1,449.1
China Datang Corp.	China	Utility	1,307.5
China Railway Group Ltd.	China	Capital goods	1,163.2
China National Chemical Engineering	China	Capital goods	1,087.4
Guangzhou R&F Properties Co. Ltd.	China	Homebuilders/real estate companies	1,019.7
China Fortune Land Co. Ltd.	China	Homebuilders/real estate companies	1,015.4
China Electronics Corp.	China	High technology	942.3
Tsinghua Unigroup Ltd.	China	High technology	729.4
Jinshang Bank Co. Ltd.	China	Banks and brokers	723.8

Table 8

Largest Emerging Markets Corporate Bond Issuers: December 2018 (cont.)

Issuer	Country	Sector	(Mil. \$)
Vanke Real Estate (Hong Kong) Co. Ltd.	China	Homebuilders/real estate companies	629.4
China Reform Holdings Corp. Ltd.	China	Banks and brokers	595.9
China Galaxy Securities Co. Ltd.	China	Banks and brokers	579.3

Sources: Thomson Financial and S&P Global Fixed Income Research.

International Public Finance

International public finance volume declined 11% in 2018 from 2017, ending at \$481 billion. All regions were lower in 2018 than in 2017. Asia, the largest region, experienced the biggest volume decline, of \$39 billion, or 13%. Central to the decline in Asia was reduced issuance in China, where deleveraging policies are more greatly affecting government issuers than private borrowers. European issuance and Canadian issuance were essentially the same, down slightly, by 2% and 3%, respectively.

Data on non-U.S. public finance volume are not reliable for determining the true size of borrowing, but the numbers can highlight major trends. The past four years have recorded the highest volume ever in international public finance, averaging \$552 billion annually. We expect volume in 2019 to be about the same as in 2018, at \$475 billion-\$485 billion.

Other Global Structured Finance

Combining covered bond and securitization volumes, overall structured finance issuance outside the U.S. and Europe posted double-digit growth rates in 2018. Most structured finance issuance activity in these other regions is in Australia, Canada, and Japan. While issuance in Asia-Pacific was up by only 6%, Canadian covered bond issuance surged to \$33 billion in 2018 from only \$15 billion in 2017. Overall, structured finance issuance outside the U.S. and Europe reached \$180 billion in 2018, up nearly 20% year over year.

In this report, our figures exclude Chinese securitization issuance rated only by domestic rating agencies, which has boomed in recent years to almost \$300 billion in annual issuance. However, as the Chinese securitization sector develops, the volume of internationally rated issuance is expanding and could be a source of further growth in 2019. We anticipate that structured finance issuance outside the U.S. and Europe will continue to grow modestly in 2019.

Related Research

- U.S. Municipal Issuers Keep Their Footing On An Uneven Road Into 2019, Jan. 10, 2019
- Asia-Pacific Crystal Ball--Mild Economic Slowdown Should Extend Through 2019, Dec. 10, 2018
- The New Year Will Likely Ring In A Record U.S. Expansion; Could It Be A Last Hurrah?, Dec. 4, 2018
- Latin American Economies Will Face Another Challenging Year In 2019, Nov. 30, 2018

Credit Trends: Global Financing Conditions: Bond Issuance Is Expected To Decline 0.6% In 2019

- The ECB's New Normal And How We Might Get There, Nov. 29, 2018
- U.S. Refinancing Study--\$4.88 Trillion Of Rated Corporate Debt Is Scheduled To Mature Through 2023, Aug. 21, 2018
- Latin American Refinancing Study--\$234 Billion Of Rated Corporate Debt Is Forecast To Mature Through 2023, Aug. 16, 2018
- European Refinancing Study--€3.6 Trillion Of Rated Companies' Debt Is Scheduled To Mature By End-2023, Aug. 8, 2018
- Global Refinancing Study--Over \$11 Trillion In Rated Corporate Debt Is Set To Mature Through 2023, July 23, 2018
- Asia-Pacific Refinancing Study--A Peak Of \$253 Billion In Rated Corporate Debt Is Set To Mature In 2020, Feb. 13, 2018

This report does not constitute a rating action.

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