

August 2018 Highlights	
Loan Growth <ul style="list-style-type: none"> Bilateral loans up +0.2% month over month Participations up +0.2% month over month 	↑
New/Renewed Volume <ul style="list-style-type: none"> Aggregate new/renewed bilateral volume up from prior month Aggregate new/renewed participation volume up from prior month 	↑
Spread Pricing <ul style="list-style-type: none"> Spread pricing down this month for both new and renewed bilateral loans Spread pricing up this month for new participations and down for renewed participations 	↔
Fee Performance <ul style="list-style-type: none"> Upfront fee incidence and level flat month over month for new bilateral loans Upfront fee level up month over month for bilateral renewals, upfront fee incidence down 	↔

Commercial Loan Balances Continue to Grow in August

Total loan balances were up in August from July, with comparable month-to-month growth rates observed between bilateral loans and participations. August's increase in bilateral loans was concentrated within a small number of states, whereas the increase in participation balances was more broad based. Aggregate new/renewed volume increased in August from last month for both bilateral loans and participations, while pricing results were mixed when viewed across loan types and credit risk segments.

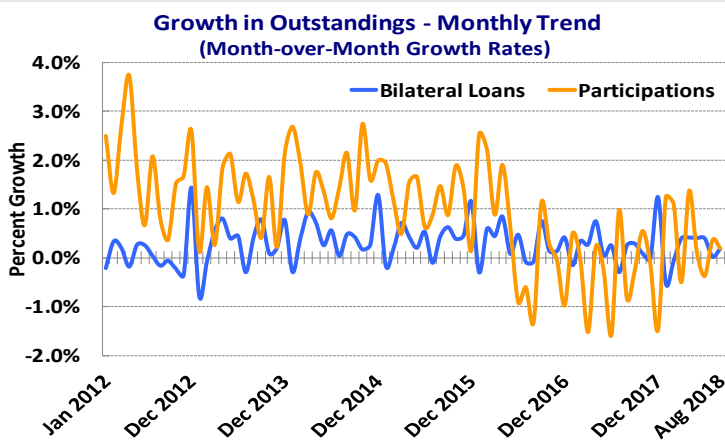
- Loan Growth:** Participations outpaced bilateral loans across the majority of states. Growth in participation balances was highest in the Southwest region. From a loan size perspective, total balance growth in August was tempered by declines for loans under \$5M in size, **p. 1-3, & 5-6.**
- New/Renewed Volume:** New/renewed volume increased in August from July for both bilateral loans and participations. Over the last year, new/renewed participation volume increased broadly across the credit risk spectrum, particularly in the 06 (low pass) risk rating segment, **p. 4 & 6.**
- Spread Pricing:** Spread pricing results were mixed in August. For bilateral loans, spreads were down sharply in August from a year ago. The spread changes over this same period were comparatively modest for participations. For both bilateral loans and participations, year-to-date spread pricing averages were highest for the Southwest region, **p. 4-6, & 8.**
- Fee Performance:** For new bilateral loans, neither the Upfront fee incidence nor level varied much from July to August. For bilateral renewals, an increase in Upfront fee level from July to August was matched by a decline in Upfront fee incidence, **p. 7.**

John H. Shain
President

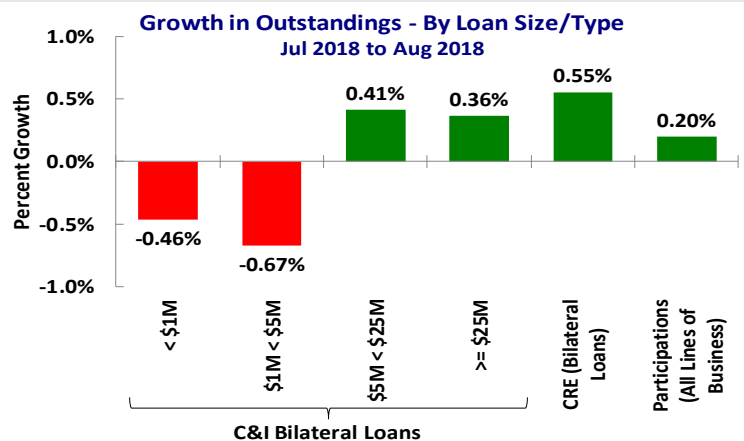
Automated Financial Systems, Inc.

This newsletter presents monthly reporting on Commercial loan characteristics. The information is derived from the AFS Pricing Dashboard, which contains approximately \$1 trillion in Commercial banking commitments. Note: The charts below reflect total loan outstandings for participating banks.

Loan Growth



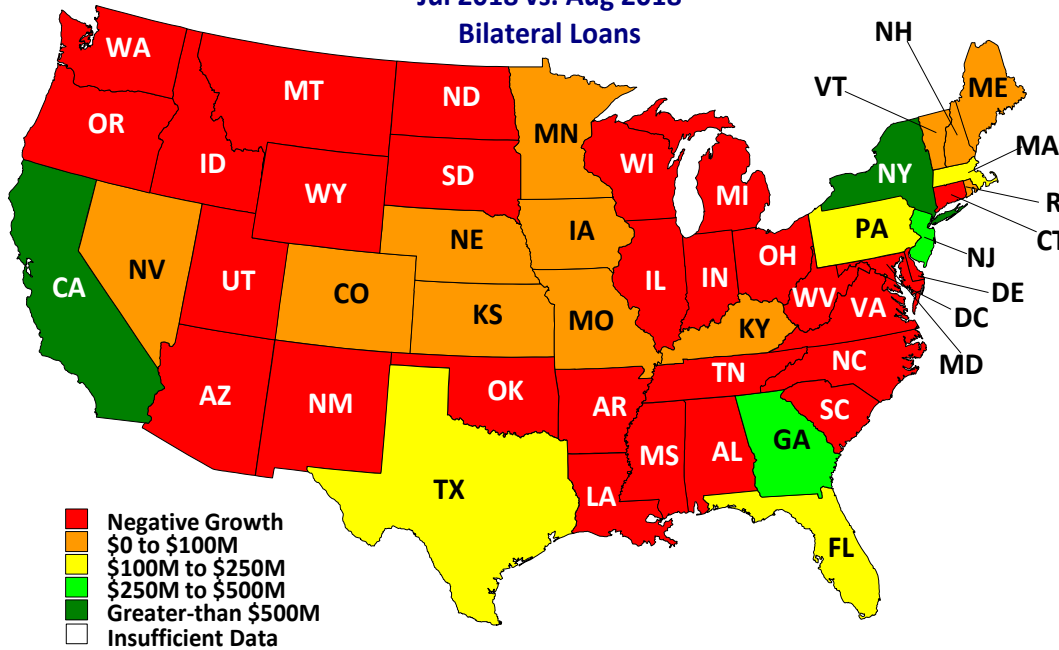
- M/M Growth:** +0.2% Bilateral, +0.2% Participations
- Historical Perspective:** Month-over-month balance growth rates were nearly identical between bilateral loans and participations in August, a convergence last seen in 2013.



- M/M Growth:** Total balance growth in August was tempered by sharp declines in the <\$5M loan size ranges. Participations continued to grow in August although at a slower pace than seen in July.

Loan Growth Dynamics – Jul 2018 vs. Aug 2018 – Bilateral Loans

Growth in Outstandings Jul 2018 vs. Aug 2018 Bilateral Loans



Consistent with the prior month's results, bilateral loans were down across the majority of states in August.

- **California** (+0.7%) and **New York** (+1.0%) led bilateral loan balance growth in August.
- **Connecticut** (-5.8%) and **Alabama** (-0.2%), two top states for bilateral loans in July, both reported bilateral loan balance declines in August.

\$ Change in Outstandings

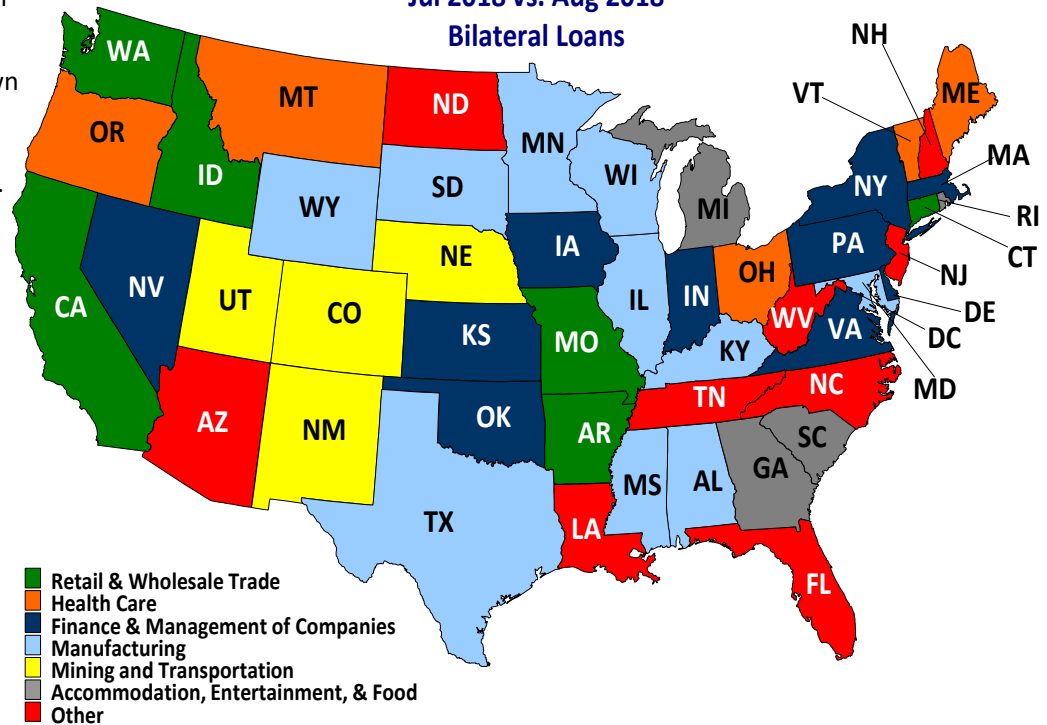
Top 5 States	Bottom 5 States
1. California	1. Connecticut
2. New York	2. Illinois
3. New Jersey	3. Ohio
4. Georgia	4. Maryland
5. Massachusetts	5. West Virginia

- The **Finance & Management** sector helped fuel bilateral balance growth in August, with large increases seen for this sector in New York and Massachusetts.

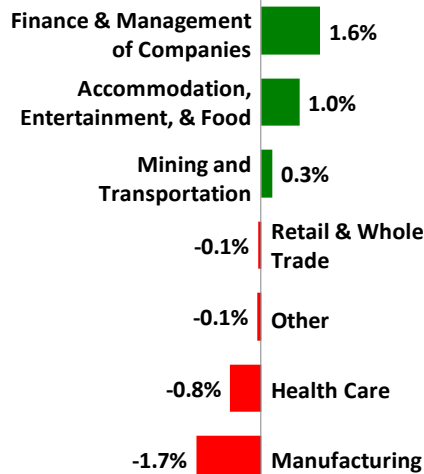
- In aggregate, bilateral balances were down in August for the **Manufacturing** sector. However, several states in the Midwest reported increases for this same industry.

Growth in Outstandings - Predominant C&I Industries*

Jul 2018 vs. Aug 2018 Bilateral Loans



Growth in Outstandings* - By Industry Bilateral Loans

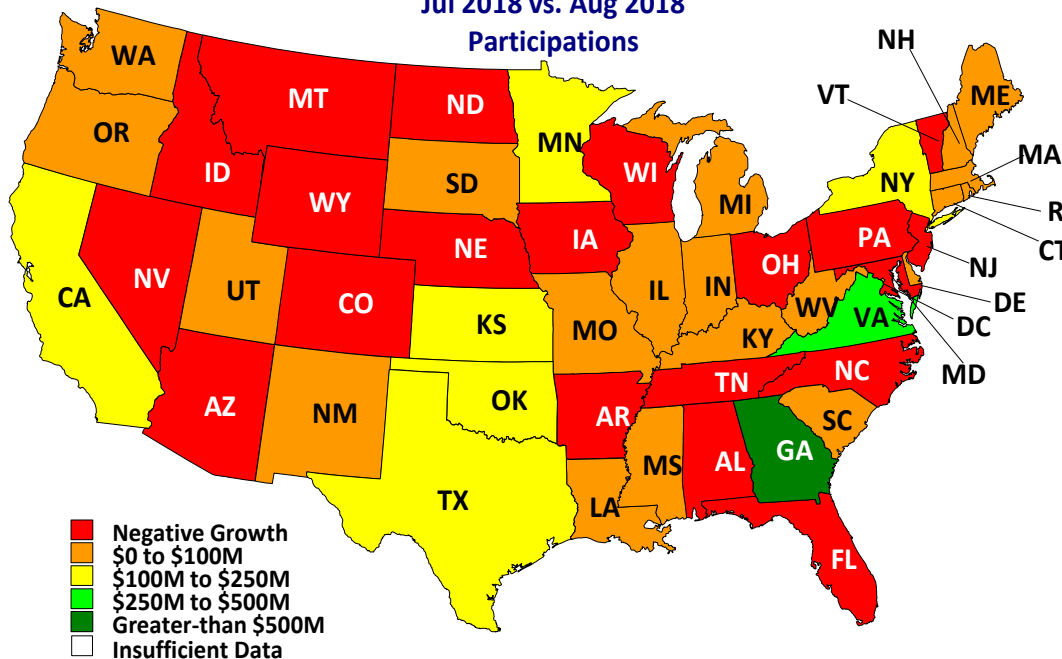


*Based on grouping of similar 2-digit NAICS codes.
"Other" includes Agriculture, Utilities, Information, Professional Services, Educational Services, Admin & Waste Mgmt, Public Administration, and Other Services.

* Growth in outstandings in Aug 2018 from Jul 2018
Excludes CRE Loans

Loan Growth Dynamics – Jul 2018 vs. Aug 2018 – Participations

Growth in Outstandings Jul 2018 vs. Aug 2018 Participations



Participation balances were up in August from last month across the majority of states.

- In August, **Georgia** (+8.3%) displayed the largest month-over-month increase in participation balances.
- Florida** (-5.9%), a top 5 state for participations last month, reported a sharp drop in participation balances in August. The decline was driven heavily by the Manufacturing sector.

\$ Change in Outstandings

Top 5 States

1. Georgia
2. Virginia
3. California
4. Texas
5. Oklahoma

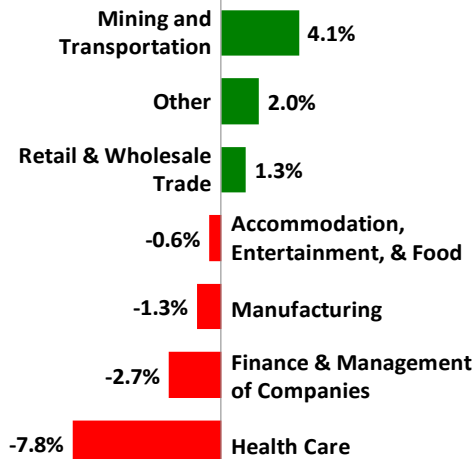
Bottom 5 States

1. Florida
2. Tennessee
3. Colorado
4. Ohio
5. New Jersey

- The rebound in the **Mining & Transportation** sector continued in August, with large increases in participation balances reported in Texas and Oklahoma.

- In August, participation balances were down sharply for the **Health Care** industry, with declines seen across all major subsectors within this broad industry.

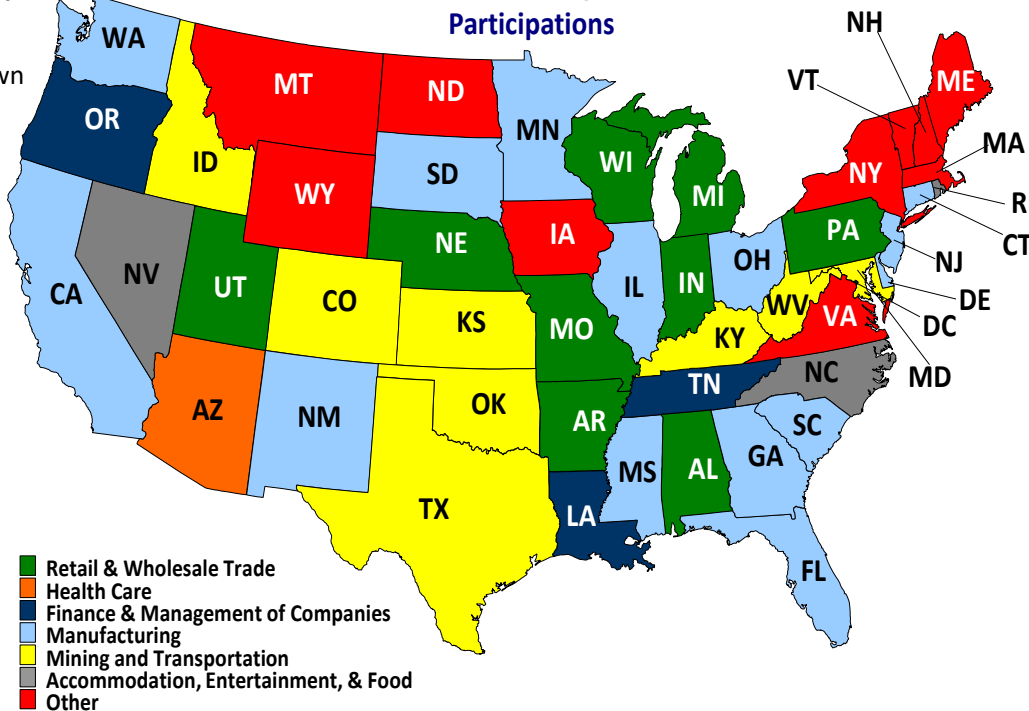
Growth in Outstandings* - By Industry Participations



* Growth in outstandings in Aug 2018 from Jul 2018
Excludes CRE Loans

Growth in Outstandings - Predominant C&I Industries*

Jul 2018 vs. Aug 2018

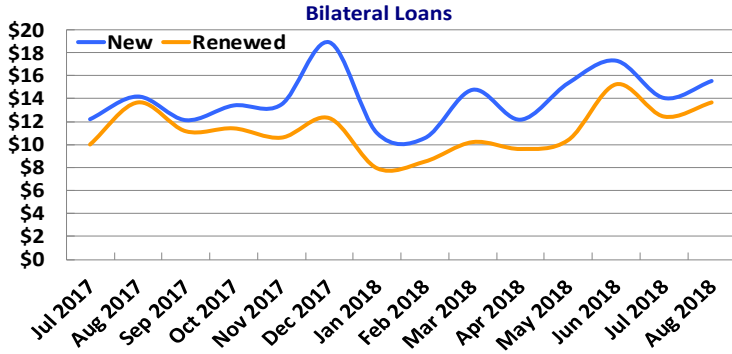


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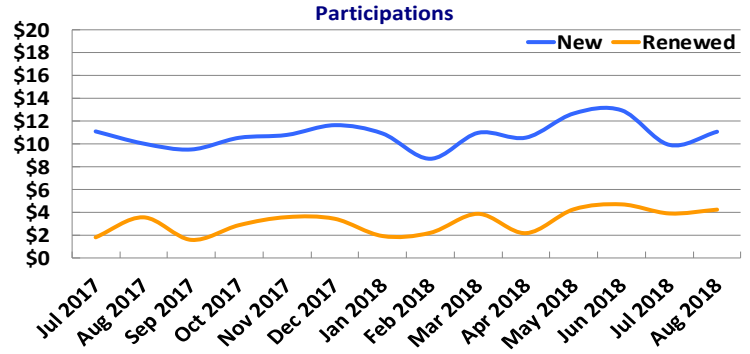
Portfolio Mix – New and Renewed Loans

New and Renewed Loans Trend (\$ Billions)



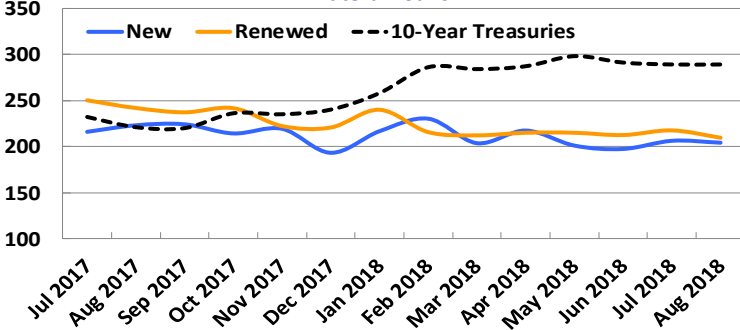
- New and renewed bilateral volume increased in August from July, a repeat of the trend seen last August.
- Aggregate new/renewed bilateral volume was up year over year in August, led by higher levels of new bilateral loans.

New and Renewed Loans Trend (\$ Billions)



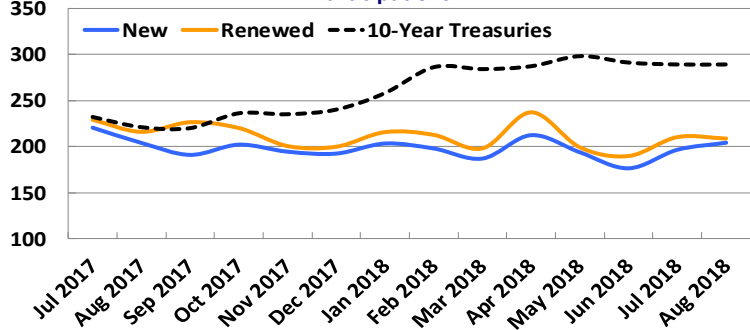
- For participations, volume for both new loans and renewals increased in August from the prior month.
- On a year-over-year basis, volume for both new and renewed participations was up in August.

LIBOR-Equivalent Spread (in BPS) Trend



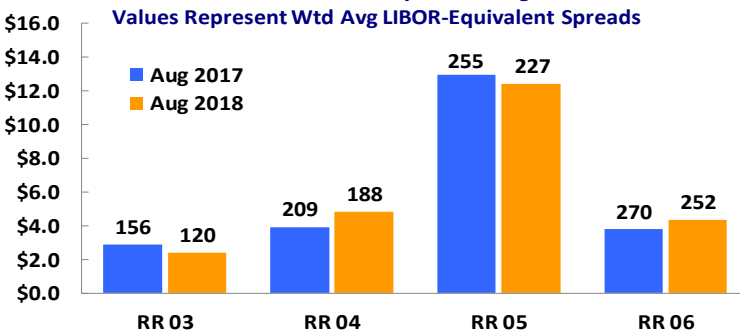
- Spread pricing for new bilateral loans was flat month over month in August, trending below the average reported a year ago.
- The average spread for bilateral renewals declined in August, falling to the lowest level seen over the last year.

LIBOR-Equivalent Spread (in BPS) Trend



- The average spread for new participations increased month over month in August and was on par with the prior year's average.
- Spread pricing for renewed participations was down in August relative to both last month and August of the prior year.

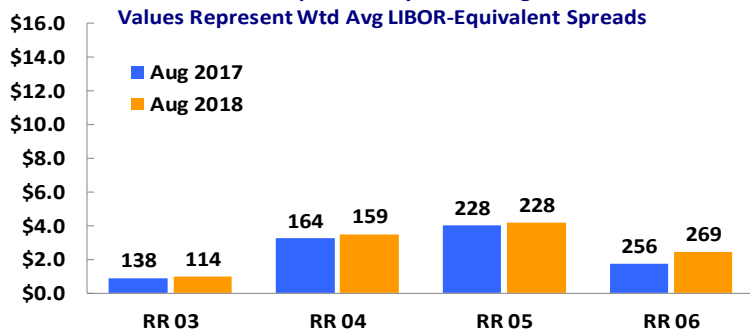
Year-over-Year New & Renewed Volume (\$ Billions)



- August's year-over-year increase in new/renewed bilateral volume was focused in the 04 and 06 risk rating segments.
- On a year-over-year basis, spread pricing for new/renewed bilateral loans was down in August across every risk rating.

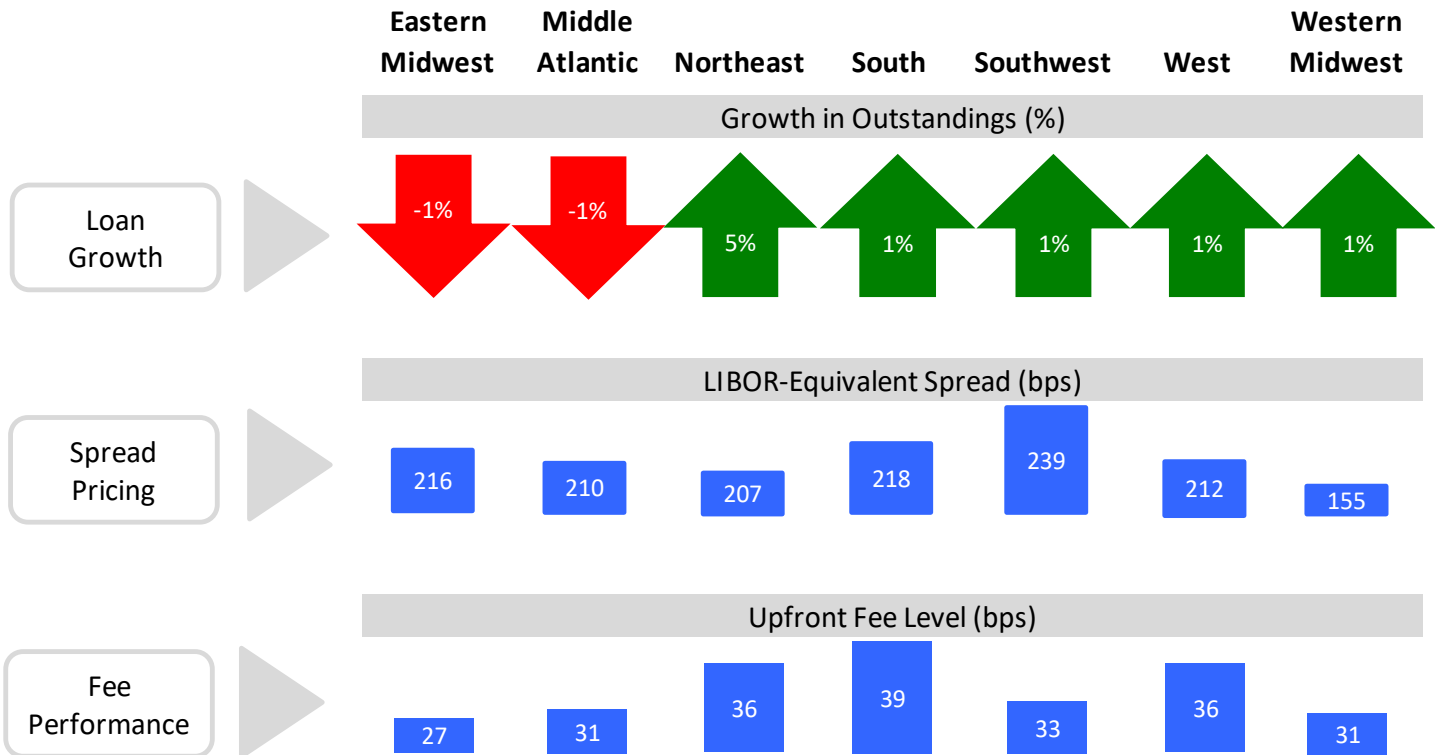
Risk ratings based on the RMA 10-point obligor risk rating scale.

Year-over-Year New & Renewed Volume (\$ Billions)

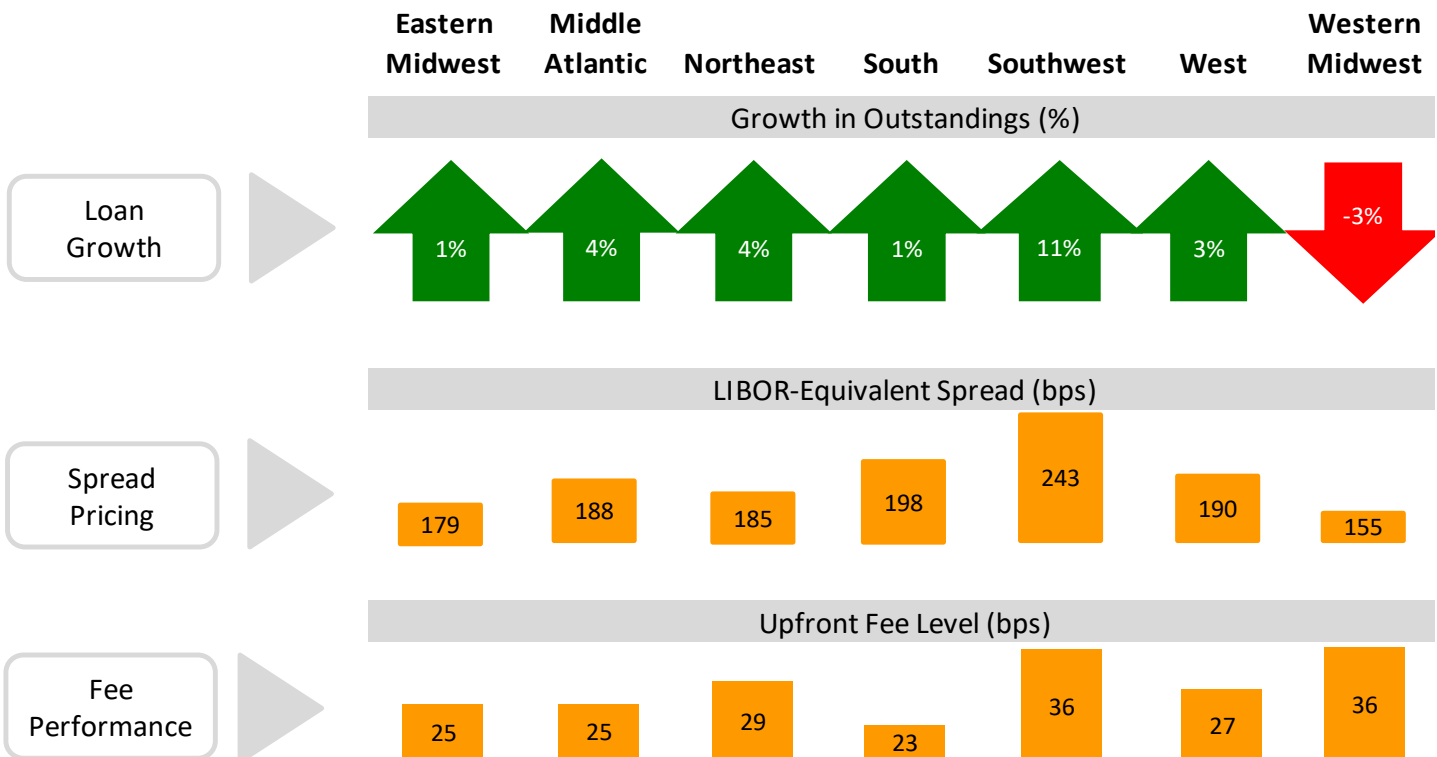


- New/renewed participation volume was up year over year in August across every risk rating, particularly for the 06 category.
- The year-over-year increase in participation volume with an 06 risk rating was complemented by an increase in spread pricing.

August 2018 Year-to-Date Growth and Pricing Dynamics – Predominant C&I Industries* – Bilateral Loans



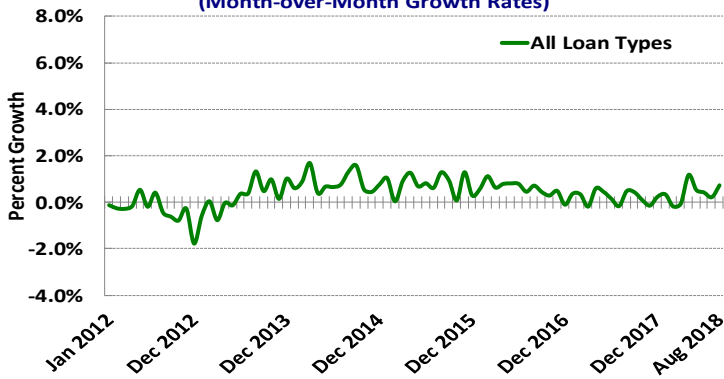
August 2018 Year-to-Date Growth and Pricing Dynamics – Predominant C&I Industries* – Participations



LIBOR-Equivalent Spread and Upfront Fee Level data based on year-to-date new and renewed loans.

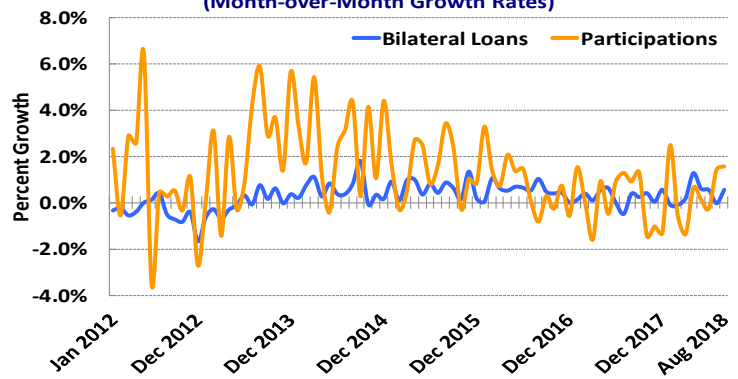
Commercial Real Estate (CRE) – Growth and Pricing Dynamics

Growth in Outstandings - Monthly Trend - CRE
(Month-over-Month Growth Rates)



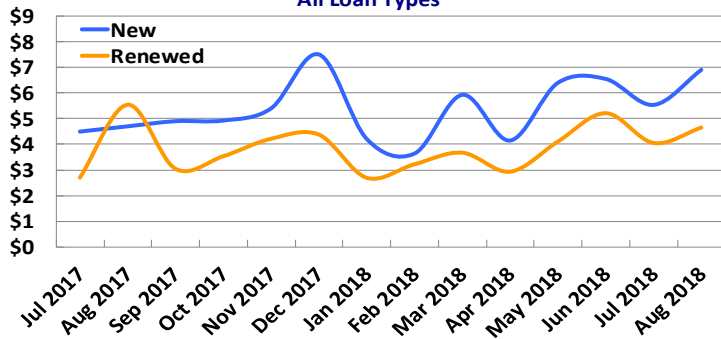
- The pace of total CRE balance growth accelerated in August, with CRE balances rising at a month-to-month rate of +0.7%.
- August's month-to-month increase in total CRE balances was larger than that seen a year ago (+0.5%).

Growth in Outstandings - Monthly Trend - CRE
(Month-over-Month Growth Rates)



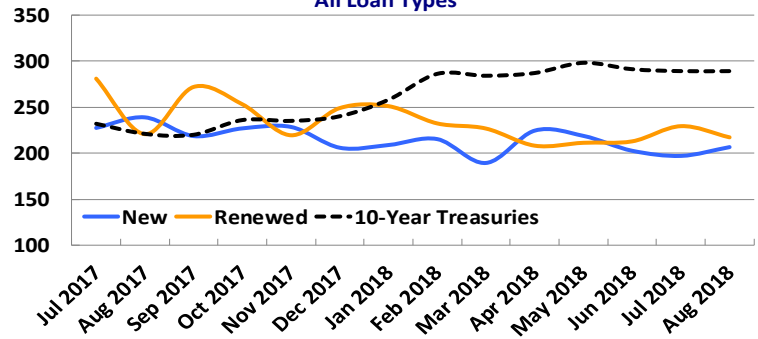
- CRE bilateral balances increased +0.6% in August, a rebound compared to July's flat growth rate.
- The pace of CRE participations continued to trend upwards in August, reaching a month-to-month growth rate of +1.6%.

New and Renewed CRE Loans Trend (\$ Billions)
All Loan Types



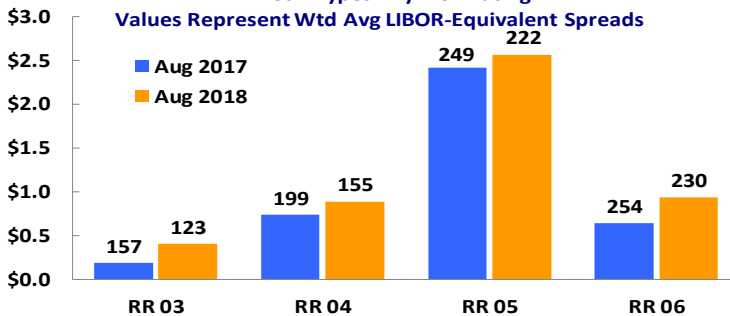
- New CRE volume was up in August when compared to both July and the same month a year earlier.
- Renewed CRE volume increased in August from July but was down when compared to last August.

LIBOR-Equivalent Spread (in BPS) Trend - CRE
All Loan Types



- The spread for new CRE loans ticked up in August from July but remained well beneath the average spread seen a year ago.
- Spread pricing for CRE renewals was down in August when compared to both July and the same month a year earlier.

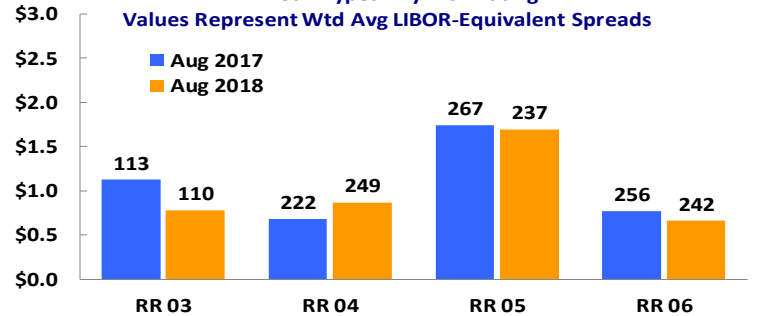
Year-over-Year New Volume (\$ Billions) - CRE
All Loan Types - By Risk Rating



- New CRE volume increased year over year in August across every risk rating segment.
- While new CRE volume was up broadly across the risk spectrum, spread pricing was down year over year across every risk category.

Risk ratings based on the RMA 10-point obligor risk rating scale.

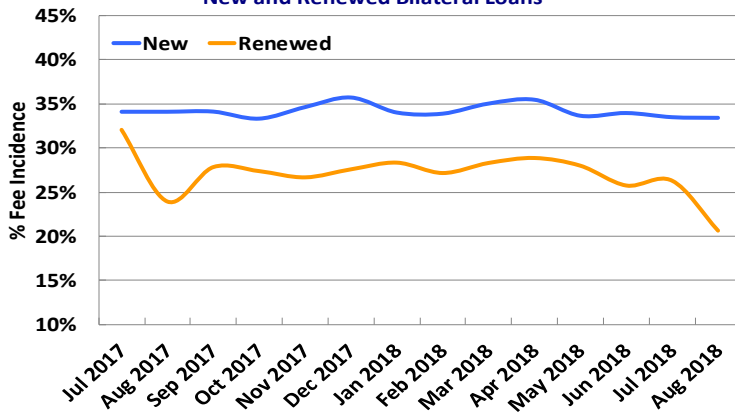
Year-over-Year Renewed Volume (\$ Billions) - CRE
All Loan Types - By Risk Rating



- Over the last year, an increase in CRE renewal volume risk rated 04 was offset by declines across the other risk segments.
- Spread pricing for CRE renewals was down year over year in August across every risk rating except the 04 category.

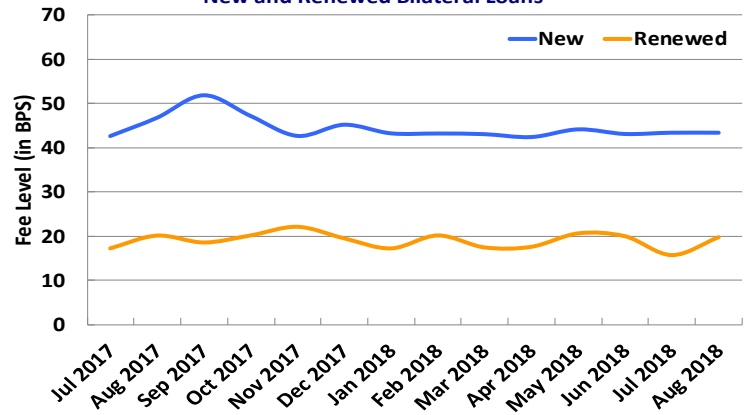
Upfront Fee Performance – Bilateral Loans

Upfront Fee Incidence Trend
New and Renewed Bilateral Loans



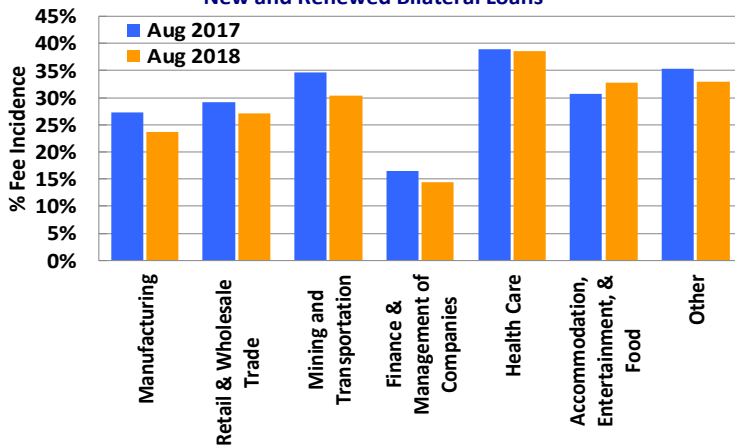
- The Upfront fee incidence for new bilateral loans held relatively steady over the last several months, trending slightly above 33%.
- The Upfront fee incidence for bilateral renewals declined sharply in August from July, mirroring a drop of similar significance over the same period a year ago.

Upfront Fee Level (in BPS) Trend
New and Renewed Bilateral Loans



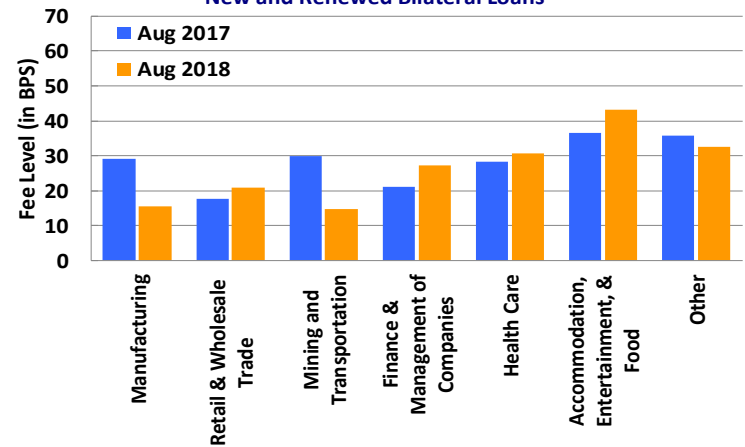
- The Upfront fee level for new bilateral loans varied little in August from July and was down slightly from last August.
- The Upfront fee level for bilateral renewals increased in August from July and was on par with the level reported in the same month a year earlier.

Upfront Fee Incidence by Industry*
New and Renewed Bilateral Loans



- Upfront fee incidence rates were down in August from a year ago across every industry except **Accom., Entertainment & Food**.
- Consistent with the prior year's results, the **Health Care** sector displayed the highest Upfront fee incidence in August.

Upfront Fee Level (in BPS) by Industry*
New and Renewed Bilateral Loans



- In August, **Accom., Entertainment, & Food** remained the highest industry in terms of Upfront fee level.
- The Upfront fee level for the **Mining & Transportation** sector was down sharply year over year in August.

*Based on grouping of similar 2-digit NAICS codes. "Other" includes Agriculture, Utilities, Information, Professional Services, Educational Services, Admin & Waste Mgmt, Public Administration, and Other Services.

Footnotes

1. The LIBOR-equivalent spread for Prime- and LIBOR-based loans is calculated by subtracting the one-month LIBOR rate (as of the last business day of the month) from the actual interest rate.
2. The LIBOR-equivalent spread for fixed-rate loans is calculated by subtracting the Federal Reserve swap rate in effect on the day that the loan was originated or renewed from the actual interest rate.
3. A bilateral loan is a one bank, one borrower lending relationship. A participation is a borrower lending relationship involving more than one bank.
4. Geographic data refers to the location of the borrower, not necessarily the bank booking the loan.
5. CRE loans are investor real estate loans for the purpose of construction, land development, and other land loans; multifamily residential properties; and loans secured by other nonfarm nonresidential properties. Owner occupied is not included.
6. Risk Ratings based on the RMA 10-point obligor risk rating scale. This scale contains 6 "Pass" gradations, and the standard regulatory classification gradations of Special Mention, Substandard, Doubtful, and Loss (grades 7-10, respectively).
7. New/renewed trends exclude loans risk rated Substandard, Doubtful, and Loss (grades 8-10, respectively).
8. Upfront Fee Incidence represents the number of obligations with Upfront fees as a percentage of all obligations.
9. Upfront Fee Level (in BPS) represents the amount of Upfront fees assessed as a percentage of the original/last renewed amount for only those deals with Upfront fees.

Rates by Loan Size: New – Bilateral Loans

	Loan Size < \$1M			Loan Size \$1M < \$5M			Loan Size \$5M < \$25M			Loan Size >= \$25M		
	Aug 2017	Jul 2018	Aug 2018	Aug 2017	Jul 2018	Aug 2018	Aug 2017	Jul 2018	Aug 2018	Aug 2017	Jul 2018	Aug 2018
FIXED-RATE LOANS												
Interest Rate	4.30	5.03	5.03	4.16	4.77	4.70	3.84	4.35	4.42	3.84	N/A	N/A
LIBOR-Equivalent Spread	2.40	2.15	2.14	2.20	1.88	1.80	1.87	1.46	1.53	1.48	N/A	N/A
WARR	4.8	4.9	5.0	4.9	4.9	4.8	4.6	4.4	4.5	4.8	N/A	N/A
LIBOR-RATE LOANS												
Interest Rate	3.60	4.38	4.34	3.48	4.25	4.29	3.47	4.19	4.15	2.99	3.68	3.81
LIBOR-Equivalent Spread	2.36	2.30	2.23	2.25	2.17	2.18	2.24	2.11	2.03	1.76	1.59	1.70
WARR	4.4	4.7	4.6	4.6	4.8	4.7	4.9	4.9	4.8	4.3	4.3	4.5
PRIME-RATE LOANS												
Interest Rate	5.21	5.73	5.72	4.82	5.07	5.22	4.15	4.95	4.90	3.93	4.78	4.59
LIBOR-Equivalent Spread	3.98	3.65	3.61	3.58	2.99	3.11	2.92	2.87	2.78	2.69	2.69	2.47
WARR	5.1	5.1	5.1	5.1	5.1	5.1	4.9	4.9	5.1	5.0	4.6	5.1

Rates by Loan Size: Renewed – Bilateral Loans

	Loan Size < \$1M			Loan Size \$1M < \$5M			Loan Size \$5M < \$25M			Loan Size >= \$25M		
	Aug 2017	Jul 2018	Aug 2018	Aug 2017	Jul 2018	Aug 2018	Aug 2017	Jul 2018	Aug 2018	Aug 2017	Jul 2018	Aug 2018
FIXED-RATE LOANS												
Interest Rate	4.57	5.16	5.20	4.30	4.71	4.68	3.61	4.34	4.46	N/A	N/A	N/A
LIBOR-Equivalent Spread	2.79	2.31	2.33	2.58	1.88	1.84	1.93	1.53	1.56	N/A	N/A	N/A
WARR	5.0	5.0	5.1	5.0	4.7	5.0	4.7	4.2	4.6	N/A	N/A	N/A
LIBOR-RATE LOANS												
Interest Rate	3.05	4.69	3.90	3.55	4.51	4.45	3.35	4.25	4.18	3.24	3.59	3.65
LIBOR-Equivalent Spread	1.82	2.61	1.78	2.32	2.43	2.34	2.12	2.17	2.07	2.01	1.51	1.53
WARR	3.9	5.0	4.0	4.6	4.9	4.9	4.7	4.7	4.9	4.7	4.4	4.3
PRIME-RATE LOANS												
Interest Rate	5.21	5.71	5.71	4.62	5.25	5.21	4.55	5.24	4.84	4.34	4.96	4.82
LIBOR-Equivalent Spread	3.98	3.63	3.60	3.39	3.17	3.10	3.32	3.16	2.73	3.11	2.88	2.70
WARR	5.0	4.9	4.9	5.1	5.0	5.0	4.5	4.7	4.5	2.6	3.3	3.8

Weighted Average Risk Rating (WARR) based on the RMA 10-point obligor risk rating scale.

AFS Continues to Lead in the Technology Space

30 FASTEST GROWING TECH COMPANIES SR 2018
CIO 20 MOST PROMISING BANKING TECHNOLOGY SOLUTION PROVIDERS - 2018
30 CB 2017 MOST Innovative Companies
50 BEST Companies To Watch SR 2017
Banking TOP 10 CIO CLOUD BANKING Outlook SOLUTION PROVIDERS-2017
[Read more about it at www.afsvision.com](http://www.afsvision.com)

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