BOK FINANCIAL CORP ET AL
Form 10-Q
July 31, 2018

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-Q
(Mark One)
ý QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the quarterly period ended June 30, 2018
OR
¨ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from _____________ to ______________

Commission File No. 0-19341

BOK FINANCIAL CORPORATION
(Exact name of registrant as specified in its charter)

Oklahoma	73-1373454
(State or other jurisdiction of Incorporation or Organization)	(IRS Employer Identification No.)

Bank of Oklahoma Tower
Boston Avenue at Second Street

Tulsa, Oklahoma	74192
(Address of Principal Executive Offices)	(Zip Code)

(918) 588-6000
(Registrant's telephone number, including area code)

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ý No ¨

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).Yes ý No ¨

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer. See definition of "accelerated filer and large accelerated filer" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer ý Accelerated filer ¨
Non-accelerated filer ¨ (Do not check if a smaller reporting company) Smaller reporting company ¨

Emerging growth company ¨

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ¨

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes ¨ No ý

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date: 65,439,090 shares of common stock ($.00006 par value) as of June 30, 2018.

BOK Financial Corporation
Form 10-Q
Quarter Ended June 30, 2018

Index

Part I. Financial Information
Management's Discussion and Analysis (Item 2) 1
Market Risk (Item 3) 43
Controls and Procedures (Item 4) 46
Consolidated Financial Statements – Unaudited (Item 1) 48
Quarterly Financial Summary – Unaudited (Item 2) 120
Quarterly Earnings Trend – Unaudited 123

Part II. Other Information
Item 1. Legal Proceedings 123
Item 2. Unregistered Sales of Equity Securities and Use of Proceeds 123
Item 6. Exhibits 123
Signatures 124

Management's Discussion and Analysis of Financial Condition and Results of Operations
Performance Summary

BOK Financial Corporation ("the Company") reported net income of $114.4 million or $1.75 per diluted share for the second quarter of 2018, compared to $88.1 million or $1.35 per diluted share for the second quarter of 2017 and $105.6 million or $1.61 per diluted share for the first quarter of 2018.

On June 18, 2018, the Company announced the signing of a definitive merger agreement with CoBiz Financial Inc. CoBiz is headquartered in Denver with a presence in Colorado and Arizona and has approximately $3.8 billion in assets. Upon completion of the merger, CoBiz shareholders will receive 0.17 shares of BOK Financial common stock and $5.70 in cash for each share of CoBiz common stock. The merger is subject to customary closing conditions including regulatory approval.

Highlights of the second quarter of 2018 included:

- Net interest revenue totaled $238.6 million, up from $205.2 million in the second quarter of 2017 and $219.7 million in the first quarter of 2018. The increase in net interest revenue over the prior year was driven by both improving yields and growth in average earning assets. Net interest margin was 3.17 percent for the second quarter of 2018. Net interest margin was 2.89 percent for the second quarter of 2017 and 2.99 percent for the first quarter of 2018. Average earning assets were $30.3 billion for the second quarter of 2018 compared to $29.2 billion for the second quarter of 2017.
- Fees and commissions revenue totaled $157.9 million. Adoption of the new revenue recognition accounting standard in the first quarter of 2018 resulted in interchange fees we pay to issuing banks being netted against transaction card revenue. Previously these fees were included in data processing and communications expense. Excluding this impact, fees and commissions revenue decreased $9.4 million compared to the second quarter of 2017. Brokerage and trading revenue decreased $5.3 million while mortgage banking revenue decreased $3.9 million, both affected by rising interest rates. Fees and commissions revenue decreased $1.1 million compared to the first quarter of 2018. Modest changes in revenue from other business lines was offset by decreased brokerage and trading revenue.
- Other operating expense totaled $246.5 million, a $5.8 million or 2 percent increase over the second quarter of 2017 on a comparable basis. Personnel expense decreased $4.8 million, primarily due to decreased incentive compensation expense. Non-personnel expense increased $10.6 million due largely to an increase in deposit insurance expense as a result of credits in the second quarter of 2017 along with increased project and acquisition costs. Operating expense increased $2.0 million compared to the first quarter of 2018 on a comparable basis. Personnel expense decreased $1.0 million and non-personnel expense increased $3.0 million. Professional fees and services expense and mortgage banking costs were higher in the second quarter.
- Income tax expense was $33.3 million or 22.4 percent of net income before taxes for the second quarter of 2018 compared to $47.7 million or 34.9 percent for the second quarter of 2017. Beginning January 1, 2018, the Tax Cuts and Jobs Act ("the Act") decreased the corporate income tax rate from 35% to 21%.
- The Company recorded no provision for credit losses in the second quarter of 2018. A $5.0 million negative provision for credit losses was recorded in the first quarter of 2018. Net charge-offs totaled $10.5 million or 0.24 percent of average loans on an annualized basis in the second quarter of 2018 compared to net charge-offs of $1.3 million or 0.03 percent of average loans on an annualized basis for the first quarter of 2018. Net charge-offs were $26.9 million or 0.16 percent of average loans over the last four quarters.
- The combined allowance for credit losses totaled $218 million or 1.21 percent of outstanding loans at June 30, 2018 compared to $228 million or 1.32 percent of outstanding loans at March 31, 2018.
- Nonperforming assets that are not guaranteed by U.S. government agencies totaled $186 million or 1.04 percent of outstanding loans and repossessed assets at June 30, 2018 and $195 million or 1.13 percent of outstanding loans and repossessed assets at March 31, 2018. Potential problem loans decreased $82 million to $140 million at June 30, 2018.
- Average loan balances grew by $490 million over the previous quarter, primarily due to growth in commercial and commercial real estate loan balances. Period-end outstanding loan balances totaled $18.0 billion at June 30, 2018, an

increase of more than $665 million over March 31, 2018.

- Average deposits were largely unchanged compared to the previous quarter. Average demand deposit balances increased $72 million, while interest-bearing transaction deposit balances decreased $155 million. Period-end deposits were $22.2 billion at June 30, 2018, a $36 million decrease compared to March 31, 2018.
- The common equity Tier 1 capital ratio at June 30, 2018 was 11.92 percent. Other regulatory capital ratios were Tier 1 capital ratio, 11.92 percent, total capital ratio, 13.26 percent, and leverage ratio, 9.57 percent. At March 31, 2018, the common equity Tier 1 capital ratio was 12.06 percent, the Tier 1 capital ratio was 12.06 percent, total capital ratio was 13.49 percent, and leverage ratio was 9.40 percent.
- The company paid a regular cash dividend of $29.3 million or $0.45 per common share during the second quarter of 2018. On July 24, 2018, the board of directors approved an increase in the quarterly cash dividend to $0.50 per common share payable on or about August 27, 2018 to shareholders of record as of August 13, 2018.
- The company repurchased 8,257 common shares at an average price of $99.84 per share during the second quarter of 2018. The company repurchased 82,583 common shares at an average price of $91.83 per share during the first quarter of 2018.

Results of Operations
Net Interest Revenue and Net Interest Margin

Net interest revenue is the interest earned on debt securities, loans and other interest-earning assets less interest paid for interest-bearing deposits and other borrowings. The net interest margin is calculated by dividing tax-equivalent net interest revenue by average interest-earning assets. Net interest spread is the difference between the average rate earned on interest-earning assets and the average rate paid on interest-bearing liabilities. Net interest margin is typically greater than net interest spread due to interest income earned on assets funded by non-interest bearing liabilities such as demand deposits and equity.

Net interest revenue totaled $238.6 million for the second quarter of 2018, up from $205.2 million in the second quarter of 2017 and $219.7 million in the first quarter of 2018. Net interest margin was 3.17 percent for the second quarter of 2018, 2.89 percent for the second quarter of 2017 and 2.99 percent for the first quarter of 2018. Recoveries of foregone interest on nonaccruing loans added $5.3 million or 7 basis points to net interest margin in the second quarter of 2018. Recoveries of foregone interest were not significant in the first quarter of 2018 or the second quarter of 2017. The discussion following excludes the impact of recoveries of foregone interest in the second quarter of 2018 on net interest margin.

In addition to the impact of foregone interest recoveries on the second quarter of 2018, net interest margin was 4 basis points lower in the second quarter of 2018 compared to the second quarter of 2017 due to the impact of lower effective tax rates from the implementation of the Tax Cut and Jobs Act on the tax-equivalent yield of our tax-exempt loans and securities. However, net interest margin was 4 basis points higher in the second quarter of 2018 as we reduced our excess cash balances at the Federal Reserve. Beginning in 2014, the Company increased borrowings from the Federal Home Loan Banks, depositing the excess cash balances in the Federal Reserve to earn a spread. In conjunction with the Federal Reserve's monetary policy normalization, this spread narrowed in the second quarter of 2018.

Tax-equivalent net interest revenue increased $31.0 million over the second quarter of 2017. Table 1 shows the effect on net interest revenue from changes in average balances and interest rates for various types of earning assets and interest-bearing liabilities. Changes in interest rates and yields increased net interest revenue by $20.5 million. The benefit of an increase in short-term interest rates on the floating-rate earning assets was partially offset by higher borrowing costs. Tax-equivalent net interest revenue increased $10.5 million due to growth in average assets. Growth in the average balances of trading securities and loans was partially offset by decreases in interest-bearing cash and cash equivalents.

The tax-equivalent yield on earning assets was 3.84 percent, up 54 basis points over the second quarter of 2017, primarily due to increases in short-term interest rates resulting from three 25 basis point increases in the federal funds rate by the Federal Reserve. Loan yields increased 65 basis points to 4.68 percent. The yield on interest-bearing cash and cash equivalents increased 82 basis points. The available for sale securities portfolio yield was up 19 basis points to 2.30 percent. Funding costs were up 48 basis points over the second quarter of 2017. The cost of interest-bearing deposits increased 26 basis points and the cost of other borrowed funds increased 82 basis points. The benefit to net interest margin from earning assets funded by non-interest bearing liabilities was 37 basis points for the second quarter of 2018, up 15 basis points over the second quarter of 2017.

Average earning assets for the second quarter of 2018 increased $1.1 billion or 4 percent over the second quarter of 2017. The average balance of trading securities grew by $1.0 billion, primarily due to expansion of U.S. agency residential mortgage-backed securities trading activities. Average loans, net of allowance for loan losses, increased $650 million, due primarily to growth in commercial loans. Restricted equity security balances were up $53 million. Interest-bearing cash and cash equivalent balances decreased $334 million. Available for sale securities decreased

$221 million. Investment securities balances decreased $100 million.

Average deposits decreased $37 million compared to the second quarter of 2017. Demand deposit balances decreased $115 million and time deposit balances decreased $66 million. Interest-bearing transaction account balances increased $102 million and savings account balances increased $42 million. Average borrowed funds increased $1.0 billion over the second quarter of 2017, primarily due to the net impact of increased borrowings from the Federal Home Loan Banks. Funds purchased and repurchase agreement balances also increased over the prior year.

The yield on average earning assets was 3.84 percent, a 23 basis point increase over the prior quarter. The loan portfolio yield also increased 23 basis points to 4.68 percent. The yield on the available for sale securities portfolio increased 7 basis points to 2.30 percent. The yield on interest-bearing cash and cash equivalents increased 29 basis points. Funding costs were 1.11 percent, up 18 basis points. The cost of interest-bearing deposits increased 9 basis points to 0.66 percent. The cost of other borrowed funds was up 34 basis points to 1.84 percent. The benefit to net interest margin from earning assets funded by non-interest bearing liabilities increased 6 basis points over the prior quarter.

Average earning assets increased $423 million over the first quarter of 2018. Trading securities balances increased $549 million. Average loan balances grew by $490 million. Average interest-bearing cash and cash equivalents balances decreased $386 million. Fair value option securities held as an economic hedge of our mortgage servicing rights decreased $139 million. Available for sale securities decreased $74 million.

Average deposits decreased $72 million compared to the previous quarter. Interest-bearing transaction account balances decreased by $155 million. Demand deposit balances increased $72 million. The average balance of borrowed funds increased $231 million over the first quarter of 2018, primarily due to increased borrowings from the Federal Home Loan Banks and funds purchased and repurchase agreement balances.

Our overall objective is to manage the Company's balance sheet to be relatively neutral to changes in interest rates as is further described in the Market Risk section of this report. Approximately 82% of our commercial and commercial real estate loan portfolios are either variable rate or fixed rate that will reprice within one year. These loans are funded primarily by deposit accounts that are either non-interest bearing, or that reprice more slowly than the loans. The result is a balance sheet that would be asset sensitive, which means that assets generally reprice more quickly than liabilities. One of the strategies that we use to manage toward a relative rate-neutral position is to purchase fixed-rate residential mortgage-backed securities issued primarily by U.S. government agencies and fund them with market-rate-sensitive liabilities. The liability-sensitive nature of this strategy provides an offset to the asset-sensitive characteristics of our loan portfolio. We also may use derivative instruments to manage our interest rate risk. For the remainder of 2018, we expect low-to-mid single digit expansion in net interest margin for each 25 basis point increase in the federal funds rate.

The effectiveness of these strategies is reflected in the overall change in net interest revenue due to changes in interest rates as shown in Table 1 and in the interest rate sensitivity projections as shown in the Market Risk section of this report.

Table 1 -- Volume/Rate Analysis
(In thousands)

	Three Months Ended June 30, 2018 / 2017			Six Months Ended June 30, 2018 / 2017		
		Change Due To[1]			Change Due To[1]	
	Change	Volume	Yield/Rate	Change	Volume	Yield/Rate
Tax-equivalent interest revenue:						
Interest-bearing cash and cash equivalents	$2,542	$(1,215)	$ 3,757	$6,280	$(1,190)	$ 7,470
Trading securities	9,567	8,625	942	12,007	12,203	(196)
Investment securities:						
Taxable securities	(86)	(24)	(62)	(143)	45	(188)
Tax-exempt securities	(661)	(609)	(52)	(1,346)	(1,160)	(186)
Total investment securities	(747)	(633)	(114)	(1,489)	(1,115)	(374)
Available for sale securities:						
Taxable securities	4,402	247	4,155	7,290	(1,009)	8,299
Tax-exempt securities	(584)	(354)	(230)	(1,119)	(681)	(438)
Total available for sale securities	3,818	(107)	3,925	6,171	(1,690)	7,861
Fair value option securities	388	93	295	2,827	1,725	1,102
Restricted equity securities	1,009	817	192	1,817	1,376	441
Residential mortgage loans held for sale	(53)	(260)	207	(45)	(438)	393
Loans	40,127	6,745	33,382	65,682	8,062	57,620
Total tax-equivalent interest revenue	56,651	14,065	42,586	93,250	18,933	74,317
Interest expense:						
Transaction deposits	7,556	164	7,392	13,836	(29)	13,865
Savings deposits	—	4	(4)	1	9	(8)
Time deposits	785	(193)	978	1,369	(492)	1,861
Funds purchased and repurchase agreements	618	81	537	1,044	39	1,005
Other borrowings	16,637	3,532	13,105	29,831	5,223	24,608
Subordinated debentures	45	(1)	46	23	1	22
Total interest expense	25,641	3,587	22,054	46,104	4,751	41,353
Tax-equivalent net interest revenue	31,010	10,478	20,532	47,146	14,182	32,964
Change in tax-equivalent adjustment	(2,348)			(4,766)		
Net interest revenue	$33,358			$51,912		

[1] Changes attributable to both volume and yield/rate are allocated to both volume and yield/rate on an equal basis.

Other Operating Revenue

Other operating revenue was $156.4 million for the second quarter of 2018, a $15.6 million decrease compared to the second quarter of 2017 and largely unchanged compared to the first quarter of 2018. Fees and commissions revenue decreased $9.4 million compared to the second quarter of 2017 and was very consistent compared to the prior quarter.

Table 2 – Other Operating Revenue
(In thousands)

	Three Months Ended June 30, 2018	Three Months Ended June 30, 2017	Increase (Decrease)	% Increase (Decrease)	Three Months Ended Mar 31, 2018	Increase (Decrease)	% Increase (Decrease)
Brokerage and trading revenue	$26,488	$31,764	$(5,276)	(17)%	$30,648	$(4,160)	(14)%
Transaction card revenue[1]	20,975	20,009	966	5 %	20,990	(15)	— %
Fiduciary and asset management revenue	41,699	41,808	(109)	— %	41,832	(133)	— %
Deposit service charges and fees	27,827	28,422	(595)	(2)%	27,161	666	2 %
Mortgage banking revenue	26,346	30,276	(3,930)	(13)%	26,025	321	1 %
Other revenue	14,518	14,984	(466)	(3)%	12,330	2,188	18 %
Total fees and commissions revenue	157,853	167,263	(9,410)	(6)%	158,986	(1,133)	(1)%
Other gains (losses), net	3,983	6,108	(2,125)	N/A	(664)	4,647	N/A
Loss on derivatives, net	(3,057)	3,241	(6,298)	N/A	(5,685)	2,628	N/A
Loss on fair value option securities, net	(3,341)	1,984	(5,325)	N/A	(17,564)	14,223	N/A
Change in fair value of mortgage servicing rights	1,723	(6,943)	8,666	N/A	21,206	(19,483)	N/A
Gain (loss) on available for sale securities, net	(762)	380	(1,142)	N/A	(290)	(472)	N/A
Total other operating revenue	$156,399	$172,033	$(15,634)	(9)%	$155,989	$410	— %
Non-GAAP Reconciliation:[1]							
Transaction card revenue on income statement	$20,975	$30,228	N/A	N/A	$20,990	N/A	N/A
Netting adjustment	—	(10,219)	N/A	N/A	—	N/A	N/A
Transaction card revenue after netting adjustment	$20,975	$20,009	966	5 %	$20,990	(15)	— %

1 Non-GAAP measure to net interchange charges from prior quarters between transaction card revenue and data processing and communications expense. This measure has no effect on net income or earnings per share.

Certain percentage increases (decreases) in non-fees and commissions revenue are not meaningful for comparison purposes based on the nature of the item.

Fees and commissions revenue

Diversified sources of fees and commissions revenue are a significant part of our business strategy and represented 40 percent of total revenue for the second quarter of 2018, excluding provision for credit losses and gains and losses on other assets, securities and derivatives and the change in the fair value of mortgage servicing rights. We believe that a variety of fee revenue sources provides an offset to changes in interest rates, values in the equity markets, commodity

prices and consumer spending, all of which can be volatile. As an example of this strength, many of the economic factors such as rising interest rates resulting in growth in net interest revenue or fiduciary and asset management revenue, may also decrease mortgage production volumes. We expect growth in other operating revenue to come through offering new products and services and by further development of our presence in other markets. However, current and future economic conditions, regulatory constraints, increased competition and saturation in our existing markets could affect the rate of future increases.

Brokerage and Trading Revenue

Brokerage and trading revenue, which includes revenues from trading, customer hedging, retail brokerage and investment banking, decreased $5.3 million or 17 percent compared to the second quarter of 2017.

Trading revenue includes net realized and unrealized gains primarily related to sales of U.S. government securities, residential mortgage-backed securities guaranteed by U.S. government agencies and municipal securities to institutional customers and related derivative instruments. Trading revenue was $6.3 million for the second quarter of 2018, a $3.7 million or 37 percent decrease compared to the second quarter of 2017. Rising mortgage interest rates narrowed trading margins and slowed turnover of our trading inventory. However, the longer average hold time of trading securities increased net interest revenue by $3.1 million.

Customer hedging revenue is based primarily on realized and unrealized changes in the fair value of derivative contracts held for customer risk management programs. As more fully discussed under Customer Derivative Programs in Note 3 of the Consolidated Financial Statements, we offer commodity, interest rate, foreign exchange and equity derivatives to our customers. Customer hedging revenue totaled $9.8 million for the second quarter of 2018, a $1.8 million or 16 percent decrease compared to the second quarter of 2017.

Revenue earned from retail brokerage transactions decreased $1.2 million or 20 percent compared to the second quarter of 2017 to $4.8 million. Retail brokerage revenue includes fees and commissions earned on sales of fixed income securities, annuities, mutual funds and other financial instruments to retail customers. Revenue is primarily based on the volume of customer transactions and applicable commission rate for each product type. The implementation of the new Department of Labor ("DOL") fiduciary rule in the second quarter of 2017 has negatively impacted retail brokerage revenue.

Investment banking revenue, which includes fees earned upon completion of underwriting and financial advisory services and loan syndication fees, totaled $5.5 million for the second quarter of 2018, a $1.5 million or 37 percent increase over the second quarter of 2017. Changes in investment banking revenue are primarily related to the timing and volume of completed transactions.

Brokerage and trading revenue decreased $4.2 million compared to the first quarter of 2018, largely driven by a decrease in trading revenue due primarily to customer reaction to higher interest rates.

Transaction Card Revenue

Transaction card revenue depends largely on the volume and amount of transactions processed, the number of TransFund automated teller machine (“ATM”) locations and the number of merchants served. Transaction card revenue increased $966 thousand or 5 percent over the second quarter of 2017, primarily due to increases in transaction volumes. Transaction card was largely unchanged compared to the first quarter of 2018. The increase in transaction card revenue from the first quarter of 2018 due to an early customer termination fee was matched in the second quarter of 2017 with a seasonal increase in the volume of transactions processed.

Fiduciary and Asset Management Revenue

Fiduciary and asset management revenue is earned through managing or holding of assets for customers and executing transactions or providing related services. Approximately 80 percent of fiduciary and asset management revenue is primarily based on the fair value of assets. Rates applied to asset values vary based on the nature of the relationship. Fiduciary relationships and managed asset relationships generally have higher fee rates than non-fiduciary and/or managed relationships. Fiduciary and asset management revenue was largely unchanged compared to the second

quarter of 2017 and the first quarter of 2018.

A distribution of assets under management or administration and related fiduciary and asset management revenue follows:

Table 3 -- Assets Under Management or Administration

	Three Months Ended								
	June 30, 2018			June 30, 2017			Mar. 31, 2018		
	Balance	Revenue[1]	Margin[2]	Balance	Revenue[1]	Margin[2]	Balance	Revenue[1]	Margin[2]
Managed fiduciary assets:									
Personal	$7,791,094	$23,307	1.20 %	$7,581,555	$21,698	1.14 %	$7,577,717	22,632	1.19 %
Institutional	13,448,068	5,596	0.17 %	12,265,037	5,475	0.18 %	13,322,472	5,469	0.16 %
Total managed fiduciary assets	21,239,162	28,903	0.54 %	19,846,592	27,173	0.55 %	20,900,189	28,101	0.54 %
Non-managed assets:									
Fiduciary	25,292,738	12,426	0.20 %	25,242,561	14,049	0.22 %	25,748,101	12,997	0.20 %
Non-fiduciary	16,422,810	370	0.01 %	16,579,586	586	0.01 %	16,321,458	734	0.02 %
Safekeeping and brokerage assets under administration	15,918,736	—	— %	16,143,023	—	— %	15,909,241	—	— %
Total non-managed assets	57,634,284	12,796	0.09 %	57,965,170	14,635	0.10 %	57,978,800	13,731	0.09 %
Total assets under management or administration	$78,873,446	$41,699	0.21 %	$77,811,762	$41,808	0.21 %	$78,878,989	$41,832	0.21 %

1 Fiduciary and asset management revenue includes asset-based and other fees associated with the assets.

2 Annualized revenue divided by period-end balance.

A summary of changes in assets under management or administration for the three months ended June 30, 2018 and 2017 follows:

Table 4 -- Changes in Assets Under Management or Administration

	Three Months Ended	
	June 30,	
	2018	2017
Beginning balance	$78,878,989	$77,418,956
Net inflows (outflows)	(746,477)	(918,076)
Net change in fair value	740,934	1,310,882
Ending balance	$78,873,446	$77,811,762

Mortgage Banking Revenue

Mortgage banking revenue decreased $3.9 million or 13 percent compared to the second quarter of 2017 due to a decrease in mortgage production revenue. Mortgage loan production volumes decreased $157 million or 18 percent. Production volumes decreased compared to the prior year as average primary mortgage interest rates were up 56 basis points over the second quarter of 2017. Mortgage servicing revenue was relatively consistent compared to the second quarter of 2017. The outstanding principal balance of mortgage loans serviced for others totaled $22.0 billion,

consistent with the second quarter of 2017.

Table 5 – Mortgage Banking Revenue
(In thousands)

	Three Months Ended June 30,		Increase (Decrease)	% Increase (Decrease)	Three Months Ended Mar. 31, 2018	Increase (Decrease)	% Increase (Decrease)
	2018	2017					
Mortgage production revenue	$9,915	$13,840	$(3,925)	(28)%	$9,452	$463	5%
Mortgage loans funded for sale	$773,910	$902,978			$664,958		
Add: Current period end outstanding commitments	251,231	362,088			298,318		
Less: Prior period end outstanding commitments	298,318	381,732			222,919		
Total mortgage production volume	$726,823	$883,334	$(156,511)	(18)%	$740,357	$(13,534)	(2)%
Mortgage loan refinances to mortgage loans funded for sale	22%	33%	(1,100) bps		42%	(2,000) bps	
Gains on sale margin	1.36%	1.57%	(21) bps		1.28%	8 bps	
Primary mortgage interest rates:							
Average	4.54%	3.98%	56 bps		4.28%	26 bps	
Period end	4.55%	3.88%	67 bps		4.44%	11 bps	
Mortgage servicing revenue	$16,431	$16,436	$(5)	—%	$16,573	$(142)	(1)%
Average outstanding principal balance of mortgage loans serviced for others	21,986,065	22,055,127	(69,062)	—%	22,027,726	(41,661)	—%
Average mortgage servicing revenue rates	0.30%	0.30%	—		0.31%	(1) bp	

[1] Actual interest earned on fair value option securities less internal transfer-priced cost of funds.

Primary rates disclosed in Table 5 above represent rates generally available to borrowers on 30 year conforming mortgage loans.

Net gains on other assets, securities and derivatives

Other net gains totaled $4.0 million in the second quarter of 2018 compared to net gains of $6.1 million in the second quarter of 2017. The second quarter of 2017 included the sale of a merchant banking investment. Other net losses totaled $664 thousand in the first quarter of 2018.

As discussed in the Market Risk section following, the fair value of our mortgage servicing rights ("MSRs") changes in response to changes in primary mortgage loan rates and other assumptions. We attempt to mitigate the earnings volatility caused by changes in the fair value of MSRs by designating certain financial instruments as an economic hedge. Changes in the fair value of these instruments are generally expected to partially offset changes in the fair value of MSRs.

Table 6 - Gain (Loss) on Mortgage Servicing Rights
(In thousands)

	Three Months Ended		
	June 30, 2018	Mar. 31, 2018	June 30, 2017
Gain (loss) on mortgage hedge derivative contracts, net	$(3,070)	$(5,698)	$3,241
Gain (loss) on fair value option securities, net	(3,341)	(17,564)	1,984
Gain (loss) on economic hedge of mortgage servicing rights, net	(6,411)	(23,262)	5,225
Gain (loss) on change in fair value of mortgage servicing rights	1,723	21,206	(6,943)
Loss on changes in fair value of mortgage servicing rights, net of economic hedges included in other operating revenue	(4,688)	(2,056)	(1,718)
Net interest revenue on fair value option securities[1]	1,203	1,800	1,965
Total economic benefit (cost) of changes in the fair value of mortgage servicing rights, net of economic hedges	$(3,485)	$(256)	$247

[1] Actual interest earned on fair value option securities less internal transfer-priced cost of funds.

During the second quarter of 2018, we changed certain assumptions used in our prepayment speed model to better align with current market expectations. During the second quarter of 2018 the fair value of our mortgage servicing rights was reduced by $3.7 million due primarily to an update of assumptions in our prepayment model designed to better align our model with current market behavior and observed portfolio performance.

Other Operating Expense

Other operating expense for the second quarter of 2018 totaled $246.5 million, an increase of $5.8 million or 2 percent compared to the second quarter of 2017. Personnel expense decreased $4.8 million or 3 percent. Non-personnel expense increased $10.6 million or 11 percent compared to the prior year.

Other operating expense increased $2.0 million over the previous quarter. Personnel expense decreased $1.0 million and non-personnel expense increased $3.0 million.

Table 7 – Other Operating Expense
(In thousands)

	Three Months Ended June 30,		Increase (Decrease)	% Increase (Decrease)	Three Months Ended Mar. 31, 2018	Increase (Decrease)	% Increase (Decrease)
	2018	2017					
Regular compensation	$86,231	$83,630	$ 2,601	3 %	$84,991	$ 1,240	1 %
Incentive compensation:							
Cash-based	31,933	29,954	1,979	7 %	29,549	2,384	8 %
Share-based	(1,361)	7,380	(8,741)	(118)%	2,902	(4,263)	(147)%
Deferred compensation	900	1,000	(100)	N/A	44	856	N/A
Total incentive compensation	31,472	38,334	(6,862)	(18)%	32,495	(1,023)	(3)%
Employee benefits	21,244	21,780	(536)	(2)%	22,461	(1,217)	(5)%
Total personnel expense	138,947	143,744	(4,797)	(3)%	139,947	(1,000)	(1)%
Business promotion	7,686	7,738	(52)	(1)%	6,010	1,676	28 %
Professional fees and services	14,978	12,419	2,559	21 %	10,200	4,778	47 %
Net occupancy and equipment	22,761	21,125	1,636	8 %	24,046	(1,285)	(5)%
Insurance	6,245	689	5,556	806 %	6,593	(348)	(5)%
Data processing and communications[1]	27,739	26,111	1,628	6 %	27,817	(78)	— %
Printing, postage and supplies	4,011	4,140	(129)	(3)%	4,089	(78)	(2)%
Net losses (gains) and operating expenses of repossessed assets	2,722	2,267	455	20 %	7,705	(4,983)	(65)%
Amortization of intangible assets	1,386	1,803	(417)	(23)%	1,300	86	7 %
Mortgage banking costs	12,890	12,072	818	7 %	10,149	2,741	27 %
Other expense	7,111	8,558	(1,447)	(17)%	6,574	537	8 %
Total other operating expense	$246,476	$240,666	$ 5,810	2 %	$244,430	$ 2,046	1 %
Average number of employees (full-time equivalent)	4,875	4,910	(35)	(1)%	4,899	(24)	— %
Non-GAAP Reconciliation:[1]							
Data processing and communications expense on income statement	27,739	36,330	N/A	N/A	27,817	N/A	N/A
Netting adjustment	—	(10,219)	N/A	N/A	—	N/A	N/A
Data processing and communications expense after netting adjustment	27,739	26,111	N/A	N/A	27,817	N/A	N/A

1 Non-GAAP measure to net interchange charges from prior quarters between transaction card revenue and data processing and communications expense. This measure has no effect on net income or earnings per share.

Certain percentage increases (decreases) are not meaningful for comparison purposes.

Personnel expense

Regular compensation, which consists of salaries and wages, overtime pay and temporary personnel costs, increased $2.6 million or 3 percent over the second quarter of 2017. The average number of employees was relatively unchanged compared to the prior year. Standard annual merit increases in regular compensation were effective for the majority of our staff on March 1.

Incentive compensation decreased $6.9 million or 18 percent compared to the second quarter of 2017, primarily due to decreased share-based compensation expense based on changes in assumptions of certain performance-based equity awards. Share-based compensation expense represents expense for equity awards based on grant-date fair value. Non-vested shares generally cliff vest in 3 years and are subject to a two year holding period after vesting. The number of shares that will ultimately vest is determined by BOKF's change in earnings per share relative to a defined group of peer banks. In addition, compensation costs related to certain shares are variable based on changes in the the fair value of BOK Financial common shares.

Cash-based incentive compensation plans are either intended to provide current rewards to employees who generate long-term business opportunities for the Company based on growth in loans, deposits, customer relationships and other measurable metrics or intended to compensate employees with commissions on completed transactions. Cash-based incentive compensation expense increased $2.0 million or 7 percent over the second quarter of 2017.

Employee benefits expense decreased $536 thousand or 2 percent compared to the second quarter of 2017.
Personnel expense decreased $1.0 million compared to the first quarter of 2018. Incentive compensation expense decreased $1.0 million. Regular compensation expense increased $1.2 million. A $2.3 million seasonal decrease in payroll tax expense was partially offset by a $1.3 million increase in employee healthcare costs. The Company is self-insured and these costs may be volatile.

Non-personnel operating expense

Non-personnel operating expense increased $10.6 million or 11 percent compared to the second quarter of 2017.

Deposit insurance expense increased $5.6 million over the second quarter of 2017. The second quarter of 2017 included $5.1 million in credits related to the revision of certain inputs to the assessment calculation filed for years 2013 through 2016.

Professional fees and services expense increased $2.6 million or 21 percent mainly due to the inclusion of CoBiz acquisition costs and an increase in Consumer Banking related project costs in the second quarter of 2018.

Data processing and communications expense increased $1.6 million or 6 percent. Occupancy and equipment expense increased $1.6 million or 8 percent. These increases were primarily related to increased project costs and data processing transaction activity.
Non-personnel expense increased $3.0 million compared to the first quarter of 2018. Professional fees and services expense increased $4.8 million mainly due to expenses related to project costs of $1.8 million, CoBiz acquisition expenses of $1.0 million and $953 thousand in seasonal tax preparation charges from trust operations. Mortgage banking costs increased $2.7 million primarily due to a $1.9 million increase in accruals related to default servicing and loss mitigation costs on loans serviced for others.
Net losses and operating expenses of repossessed assets decreased $5.0 million, primarily due to a write-down of a set of repossessed oil and gas properties in the first quarter of 2018.

Income Taxes

The Company's income tax expense was $33.3 million or 22.4 percent of net income before taxes for the second quarter of 2018 compared to $47.7 million or 34.9 percent of net income before taxes for the second quarter of 2017 and $30.9 million or 22.7 percent of net income before taxes for the first quarter of 2018.

The Tax Cut and Jobs Act ("the Act") enacted on December 22, 2017 reduced the federal corporate tax rate from 35 percent to 21 percent beginning January 1, 2018. The Company continues to evaluate the impact the Act will have on its financial position and results of operations, including recognition and measurement of deferred tax assets and liabilities and the determination of effective current and deferred federal and state income tax rates. We initially recorded provisional adjustments of $11.7 million as a charge to income tax expense in the fourth quarter of 2017. We recorded an additional $1.9 million of net income tax expense for changes in provisional adjustments identified in the first quarter of 2018. No adjustments to provisional amounts were made during the second quarter of 2018.

The Company's effective tax rate is affected by recurring items such as tax-exempt income, net amortization related to its investments in low-income housing tax credit investments and share-based compensation. The effective tax rate is also affected by items that may occur in any given period but are not consistent from period to period. Accordingly, the comparability of the effective tax rate from period to period may be impacted.

BOK Financial operates in numerous jurisdictions, which requires judgment regarding the allocation of income, expense and earnings under various laws and regulations of each of these taxing jurisdictions. Each jurisdiction may audit our tax returns and may take different positions with respect to these allocations. The reserve for uncertain tax positions was $20 million at June 30, 2018, $20 million at March 31, 2018 and $17 million at June 30, 2017.

Lines of Business

We operate three principal lines of business: Commercial Banking, Consumer Banking and Wealth Management. Commercial Banking includes lending, treasury and cash management services and customer risk management products for small businesses, middle market and larger commercial customers. Commercial Banking also includes the TransFund EFT network. Consumer Banking includes retail lending and deposit services, lending and deposit services to small business customers served through our consumer branch network and all mortgage banking activities. Wealth Management provides fiduciary services, private banking services and investment advisory services in all markets. Wealth Management also underwrites state and municipal securities and engages in brokerage and trading activities.

In addition to our lines of business, we have a Funds Management unit. The primary purpose of this unit is to manage our overall liquidity needs and interest rate risk. Each line of business borrows funds from and provides funds to the Funds Management unit as needed to support their operations. Operating results for Funds Management and other include the effect of interest rate risk positions and risk management activities, securities gains and losses including impairment charges, the provision for credit losses in excess of net loans charged off, tax planning strategies and certain executive compensation costs that are not attributed to the lines of business.

We allocate resources and evaluate the performance of our lines of business using the net direct contribution, which includes the allocation of funds, actual net credit losses and capital costs. In addition, we measure the performance of our business lines after allocation of certain indirect expenses and taxes based on statutory rates.

The cost of funds borrowed from the Funds Management unit by the operating lines of business is transfer priced at rates that approximate market rates for funds with similar repricing and cash flow characteristics. Market rates are generally based on the applicable LIBOR or interest rate swap rates, adjusted for prepayment and liquidity risk. This method of transfer-pricing funds that supports assets of the operating lines of business tends to insulate them from interest rate risk.

The value of funds provided by the operating lines of business to the Funds Management unit is also based on rates that approximate wholesale market rates for funds with similar repricing and cash flow characteristics. Market rates are generally based on LIBOR or interest rate swap rates. The funds credit formula applied to deposit products with indeterminate maturities is established based on their repricing characteristics reflected in a combination of the short-term LIBOR rate and a moving average of an intermediate-term swap rate, with an appropriate spread applied to both. Shorter duration products are weighted towards the short-term LIBOR rate and longer duration products are weighted towards the intermediate-term swap rates. The expected duration ranges from 30 days for certain rate-sensitive deposits to five years.

Economic capital is assigned to the business units by a capital allocation model that reflects management's assessment of risk. This model assigns capital based upon credit, operating, interest rate and other market risk inherent in our business lines and recognizes the diversification benefits among the units. The level of assigned economic capital is a combination of the risk taken by each business line, based on its actual exposures and calibrated to its own loss history where possible. Average invested capital includes economic capital and amounts we have invested in the lines of business.

As shown in Table 8, net income attributable to our lines of business was up $20.4 million or 22% percent over the second quarter of 2017. Net interest revenue grew by $25.6 million over the prior year, primarily due to loan growth. Other operating revenue decreased by $12.4 million primarily due to decreased mortgage banking revenue and brokerage and trading revenue. The second quarter of 2017 included a gain on a merchant banking investment. Operating expense decreased by $153 thousand. Income tax expense attributable to the lines of business was down $23 million, primarily due to lower corporate tax rates related to tax reform.

Table 8 -- Net Income by Line of Business
(In thousands)

	Three Months Ended		Six Months Ended	
	June 30,		June 30,	
	2018	2017	2018	2017
Commercial Banking	$87,577	$71,345	$166,822	$139,756
Consumer Banking	6,102	6,332	15,478	9,577
Wealth Management	20,119	15,689	39,728	29,848
Subtotal	113,798	93,366	222,028	179,181
Funds Management and other	574	(5,219)	(2,094)	(2,678)
Total	$114,372	$88,147	$219,934	$176,503

Commercial Banking

Commercial Banking contributed $87.6 million to consolidated net income in the second quarter of 2018, an increase of $16.2 million or 23 percent over the second quarter of 2017. Growth in net interest revenue was partially offset by higher net charge-offs. In addition, the second quarter of 2017 included a $5.6 million gain on the sale of a merchant banking investment.

Table 9 -- Commercial Banking
(Dollars in thousands)

	Three Months Ended June 30, 2018	Three Months Ended June 30, 2017	Increase (Decrease)	Six Months Ended June 30, 2018	Six Months Ended June 30, 2017	Increase (Decrease)
Net interest revenue from external sources	$182,127	$154,377	$27,750	$342,541	$301,753	$40,788
Net interest expense from internal sources	(37,102)	(21,715)	(15,387)	(65,445)	(39,831)	(25,614)
Total net interest revenue	145,025	132,662	12,363	277,096	261,922	15,174
Net loans charged off (recovered)	10,108	1,228	8,880	10,735	(236)	10,971
Net interest revenue after net loans charged off (recovered)	134,917	131,434	3,483	266,361	262,158	4,203
Fees and commissions revenue[1]	42,874	40,303	2,571	82,891	76,303	6,588
Other gains (losses), net	173	5,831	(5,658)	(169)	7,473	(7,642)
Other operating revenue	43,047	46,134	(3,087)	82,722	83,776	(1,054)
Personnel expense	29,584	28,271	1,313	58,505	55,633	2,872
Non-personnel expense[1]	17,899	21,021	(3,122)	35,445	37,361	(1,916)
Other operating expense	47,483	49,292	(1,809)	93,950	92,994	956
Net direct contribution	130,481	128,276	2,205	255,133	252,940	2,193
Gain on financial instruments, net	9	3	6	16	41	(25)
Gain (loss) on repossessed assets, net	(67)	1,403	(1,470)	(4,232)	1,398	(5,630)
Corporate expense allocations	11,269	8,955	2,314	23,776	17,674	6,102
Income before taxes	119,154	120,727	(1,573)	227,141	236,705	(9,564)
Federal and state income tax	31,577	49,382	(17,805)	60,319	96,949	(36,630)
Net income	$87,577	$71,345	$16,232	$166,822	$139,756	$27,066
Average assets	$18,072,155	$17,791,671	$280,484	$17,933,756	$17,716,738	$217,018
Average loans	14,900,918	14,390,452	510,466	14,665,144	14,297,634	367,510
Average deposits	8,379,584	8,696,691	(317,107)	8,521,231	8,688,028	(166,797)
Average invested capital	1,345,840	1,290,167	55,673	1,352,648	1,313,997	38,651

[1] Fees and commission revenue for 2017 has been adjusted on a comparable basis with 2018 (Non-GAAP measure) to net $10.2 million and $19.4 million of interchange fees paid to issuing banks on card transactions processed by our TransFund merchant processing services for the three and six months ended June 30, 2017, respectively. The discussion following is based on this comparable basis.

Net interest revenue increased $12.4 million or 9 percent over the prior year. Growth in net interest revenue was primarily due to yields on commercial loans rising in excess of funding costs and a $510 million or 4 percent increase

in average loan balances. Yields on deposits sold to the funds management unit also went up due to the increase in short-term interest rates. Net loans charged-off increased $8.9 million. Over half of 2018 net charge-offs was from an energy loan previously identified as impaired and appropriately reserved.

Fees and commissions revenue increased $2.6 million or 6 percent over the second quarter of 2017, primarily due to increases in transaction card volumes. In addition, loan syndication fees and commercial deposit service charges and fees were up over the prior year.

Operating expenses decreased $1.8 million or 4 percent percent compared to the second quarter of 2017. Personnel expense increased $1.3 million or 5 percent, primarily due to incentive compensation expense. Non-personnel expense decreased $3.1 million or 15 percent.

Corporate expense allocations were up $2.3 million or 26 percent over the prior year, primarily due to enhancements of activity based costing drivers to better reflect services being utilized by the Commercial Banking line of business.

The average outstanding balance of loans attributed to Commercial Banking were up $510 million or 4 percent over the second quarter of 2017 to $14.9 billion. See the Loans section of Management’s Discussion and Analysis of Financial Condition following for additional discussion of changes in commercial and commercial real estate loans, which are primarily attributed to the Commercial Banking segment.

Average deposits attributed to Commercial Banking were $8.4 billion for the second quarter of 2018, a 4% decrease compared to the second quarter of 2017. See Management's Discussion and Analysis of Financial Condition and Results of Operations – Liquidity and Capital for further discussion of change.

Consumer Banking

Consumer Banking provides retail banking services through four primary distribution channels: traditional branches, the 24-hour ExpressBank call center, Internet banking and mobile banking. Consumer Banking also conducts mortgage banking activities through offices located outside of our consumer banking markets and through Home Direct Mortgage, an online origination channel.

Consumer Banking contributed $6.1 million to consolidated net income for the second quarter of 2018, a decrease of $230 thousand compared to the second quarter of 2017. Growth in net interest revenue was partially offset by decreased mortgage banking revenue. Changes in the fair value of mortgage servicing rights, net of economic hedges, decreased pre-tax net income for second quarter of 2018 $4.7 million compared to a $1.7 million decrease in pre-tax net income in the second quarter of 2017.

Table 10 -- Consumer Banking
(Dollars in thousands)

	Three Months Ended June 30,		Increase (Decrease)	Six Months Ended June 30,		Increase (Decrease)
	2018	2017		2018	2017	
Net interest revenue from external sources	$21,746	$20,756	$990	$43,499	$39,348	$4,151
Net interest revenue from internal sources	17,548	13,447	4,101	32,772	25,864	6,908
Total net interest revenue	39,294	34,203	5,091	76,271	65,212	11,059
Net loans charged off	1,139	926	213	2,440	2,199	241
Net interest revenue after net loans charged off	38,155	33,277	4,878	73,831	63,013	10,818
Fees and commissions revenue	46,332	50,745	(4,413)	91,296	95,939	(4,643)
Other losses, net	(12)	(1)	(11)	(27)	(60)	33
Other operating revenue	46,320	50,744	(4,424)	91,269	95,879	(4,610)
Personnel expense	24,995	25,133	(138)	49,336	50,052	(716)
Non-personnel expense	30,911	29,992	919	56,424	57,939	(1,515)
Total other operating expense	55,906	55,125	781	105,760	107,991	(2,231)
Net direct contribution	28,569	28,896	(327)	59,340	50,901	8,439
Gain (loss) on financial instruments, net	(6,411)	5,224	(11,635)	(29,672)	3,557	(33,229)
Change in fair value of mortgage servicing rights	1,723	(6,943)	8,666	22,929	(5,087)	28,016
Gain (loss) on repossessed assets, net	174	98	76	66	(39)	105
Corporate expense allocations	15,867	16,912	(1,045)	31,897	33,658	(1,761)
Income before taxes	8,188	10,363	(2,175)	20,766	15,674	5,092
Federal and state income tax	2,086	4,031	(1,945)	5,288	6,097	(809)
Net income	$6,102	$6,332	$(230)	$15,478	$9,577	$5,901
Average assets	$8,353,558	$8,441,831	$(88,273)	$8,410,513	$8,360,022	$50,491
Average loans	1,716,259	1,733,165	(16,906)	1,731,115	1,736,870	(5,755)
Average deposits	6,579,635	6,618,958	(39,323)	6,558,980	6,576,664	(17,684)

Average invested capital	293,420	298,165	(4,745)	284,797	300,990	(16,193)

Net interest revenue from Consumer Banking activities grew by $5.1 million or 15 percent over the the second quarter of 2017, primarily due to increased rates received on deposit balances sold to the Funds Management unit.

Fees and commissions revenue decreased $4.4 million or 9 percent compared to the second quarter of 2017. Higher interest rates in the second quarter of 2018 decreased mortgage loan production volumes and gains on sale margin were lower compared to the prior year.

Operating expenses increased $781 thousand or 1 percent over the second quarter of 2017. Personnel expenses were largely unchanged compared to the second quarter of 2017. Non-personnel expenses increased $919 thousand or 3 percent over the prior year. Professional fees increased $904 thousand. Mortgage banking costs were up $818 thousand, primarily due to a decrease in accruals related to default servicing and loss mitigation costs on loans serviced for others. These increases were partially offset by lower data processing and communications expense and miscellaneous expense.

Corporate expense allocations were $1.0 million or 6 percent lower than the prior year.

Average consumer deposits were largely unchanged compared to the second quarter of 2017. Demand deposit balances grew by $126 million or 7 percent and savings deposit balances were up $42 million or 10 percent. Higher-costing time deposit balances decreased $129 million or 13 percent and interest-bearing transaction account balances decreased $79 million or 2 percent.

Wealth Management

Wealth Management contributed $20.1 million to consolidated net income in the second quarter of 2018, up $4.4 million or 28 percent over the second quarter of 2017. Growth in net interest revenue was partially offset by a decrease in brokerage and trading revenue.

Table 11 -- Wealth Management
(Dollars in thousands)

	Three Months Ended June 30,		Increase (Decrease)	Six Months Ended June 30,		Increase (Decrease)
	2018	2017		2018	2017	
Net interest revenue from external sources	$18,754	$10,475	$8,279	$34,161	$21,960	$12,201
Net interest revenue from internal sources	10,232	10,325	(93)	20,164	19,181	983
Total net interest revenue	28,986	20,800	8,186	54,325	41,141	13,184
Net loans charged off (recovered)	(105)	(92)	(13)	(153)	(53)	(100)
Net interest revenue after net loans charged off (recovered)	29,091	20,892	8,199	54,478	41,194	13,284
Fees and commissions revenue	70,489	75,553	(5,064)	145,296	149,474	(4,178)
Other gains, net	153	16	137	113	253	(140)
Other operating revenue	70,642	75,569	(4,927)	145,409	149,727	(4,318)
Personnel expense	45,653	45,477	176	92,600	90,264	2,336
Non-personnel expense	15,838	15,139	699	31,695	30,761	934
Other operating expense	61,491	60,616	875	124,295	121,025	3,270
Net direct contribution	38,242	35,845	2,397	75,592	69,896	5,696
Corporate expense allocations	11,142	9,947	1,195	22,097	20,619	1,478
Income before taxes	27,100	25,898	1,202	53,495	49,277	4,218
Federal and state income tax	6,981	10,209	(3,228)	13,767	19,429	(5,662)
Net income	$20,119	$15,689	$4,430	$39,728	$29,848	$9,880
Average assets	$8,495,557	$6,960,872	$1,534,685	$8,296,780	$6,960,872	$1,335,908
Average loans	1,413,170	1,289,846	123,324	1,401,613	1,289,846	111,767
Average deposits	5,834,669	5,556,680	277,989	5,749,045	5,556,680	192,365
Average invested capital	248,367	230,228	18,139	249,827	230,228	19,599

Net interest revenue increased $8.2 million or 39 percent over the second quarter of 2017. Average trading securities increased $1.0 billion and average loans attributed to the Wealth Management segment increased $123 million or 10 percent. Average deposit balances increased by $278 million or 5 percent over the second quarter of 2017, primarily due to a $217 million or 6 percent increase in interest-bearing transaction account balances and a $75 million or 10 percent increase in time deposit balances.

Fees and commissions revenue decreased $5.1 million or 7 percent compared to the second quarter of 2017. Rising mortgage interest rates narrowed margins on securities and slowed turnover of our trading inventory.

- 20 -

Fees and commissions revenue above includes fees earned from state and municipal bond and corporate debt underwritings and financial advisory services, primarily in the Oklahoma and Texas markets. In the second quarter of 2018, the Wealth Management division participated in 93 state and municipal bond underwritings that totaled $1.3 billion. As a participant, the Wealth Management division was responsible for facilitating the sale of approximately $493 million of these underwritings. The Wealth Management division also participated in 6 corporate debt underwritings that totaled $3.0 billion. Our interest in these underwritings was $55 million. In the second quarter of 2017, the Wealth Management division participated in 74 state and municipal bond underwritings that totaled approximately $1.4 billion. Our interest in these underwritings totaled approximately $397 million. The Wealth Management division also participated in 6 corporate debt underwritings that totaled $2.3 billion. Our interest in these underwritings was $47 million.

Operating expense increased $875 thousand or 1 percent over the second quarter of 2017. Personnel expense was largely unchanged compared to the prior year. Non-personnel expense increased $699 thousand or 5 percent.

Corporate expense allocations were up $1.2 million or 12 percent over the prior year.

Financial Condition

Securities

We maintain a securities portfolio to enhance profitability, manage interest rate risk, provide liquidity and comply with regulatory requirements. Securities are classified as trading, held for investment, or available for sale. See Note 2 to the Consolidated Financial Statements for the composition of the securities portfolio as of June 30, 2018, December 31, 2017 and June 30, 2017.

We hold an inventory of trading securities in support of sales to a variety of customers, including banks, corporations, insurance companies, money managers and others. Trading securities increased $617 million to $1.9 billion during the second quarter of 2018 in response to expanded relationships with mortgage loan originator clients as well as slower inventory turnover rates. As discussed in the Market Risk section of this report, trading activities involve risk of loss from adverse price movement. We mitigate this risk within board-approved limits through the use of derivative contracts, short-sales and other techniques. These limits remain unchanged from levels set before our expanded trading activities.

At June 30, 2018, the carrying value of investment (held-to-maturity) securities was $392 million and the fair value was $403 million. Investment securities consist primarily of long-term, fixed rate Oklahoma and Texas municipal bonds, taxable Texas school construction bonds and residential mortgage-backed securities issued by U.S. government agencies. The investment security portfolio is diversified among issuers. The largest obligation of any single issuer is $30 million. Substantially all of these bonds are general obligations of the issuers. Approximately $92 million of the $199 million portfolio of Texas school construction bonds is also guaranteed by the Texas Permanent School Fund Guarantee Program supervised by the State Board of Education for the State of Texas.

Available for sale securities, which may be sold prior to maturity, are carried at fair value. Unrealized gains or losses, net of deferred taxes, are recorded as accumulated other comprehensive income in shareholders’ equity. The amortized cost of available for sale securities totaled $8.3 billion at June 30, 2018, a $54 million decrease compared to March 31, 2018. At June 30, 2018, the available for sale securities portfolio consisted primarily of U.S. government agency residential mortgage-backed securities and U.S. government agency commercial mortgage-backed securities. Both residential and commercial mortgage-backed securities have credit risk from delinquency or default of the underlying loans. We mitigate this risk by primarily investing in securities issued by U.S. government agencies. Principal and interest payments on the underlying loans are fully guaranteed. Commercial mortgage-backed securities have prepayment penalties similar to commercial loans.

A primary risk of holding residential mortgage-backed securities comes from extension during periods of rising interest rates or prepayment during periods of falling interest rates. We evaluate this risk through extensive modeling of risk both before making an investment and throughout the life of the security. Our best estimate of the duration of the combined residential mortgage-backed securities portfolio held in investment and available for sale securities at June 30, 2018 is 3.5 years. Management estimates the duration extends to 4.2 years assuming an immediate 200 basis point upward shock. The estimated duration contracts to 3.2 years assuming a 50 basis point decline in the current low rate environment.

The aggregate gross amount of unrealized losses on available for sale securities totaled $205 million at June 30, 2018, compared to $177 million at March 31, 2018. On a quarterly basis, we perform an evaluation on debt securities to determine if the unrealized losses are temporary as more fully described in Note 2 of the Consolidated Financial Statements. No other-than-temporary impairment charges were recognized in earnings during the second quarter of 2018.

BOK Financial is required to hold stock as members of the Federal Reserve system and the Federal Home Loan Banks ("FHLB"). These restricted equity securities are carried at cost as these securities do not have a readily determined fair value because the ownership of these shares is restricted and they lack a market. We are required to hold stock in the FHLB in proportion to our borrowings with the FHLB.

Loans

The aggregate loan portfolio before allowance for loan losses totaled $18.0 billion at June 30, 2018, up more than $665 million over March 31, 2018, primarily due to growth in commercial and commercial real estate loan balances. Personal loan balances grew slightly while residential mortgage loans were largely unchanged.

Table 12 -- Loans
(In thousands)

	June 30, 2018	Mar. 31, 2018	Dec. 31, 2017	Sept. 30, 2017	June 30, 2017
Commercial:					
Energy	$3,147,219	$2,969,618	$2,930,156	$2,867,981	$2,847,240
Services	2,944,499	2,928,294	2,986,949	2,967,513	2,958,827
Healthcare	2,353,722	2,359,928	2,314,753	2,239,451	2,221,518
Wholesale/retail	1,699,554	1,531,576	1,471,256	1,658,098	1,543,695
Manufacturing	647,816	559,695	496,774	519,446	546,137
Other commercial and industrial	556,229	570,556	534,087	543,445	520,538
Total commercial	11,349,039	10,919,667	10,733,975	10,795,934	10,637,955
Commercial real estate:					
Multifamily	1,056,984	1,008,903	980,017	999,009	952,380
Office	820,127	737,144	831,770	797,089	862,973
Retail	768,024	750,396	691,532	725,865	722,805
Industrial	653,384	613,608	573,014	591,080	693,635
Residential construction and land development	118,999	117,458	117,245	112,102	141,592
Other commercial real estate	294,702	279,273	286,409	292,997	315,207
Total commercial real estate	3,712,220	3,506,782	3,479,987	3,518,142	3,688,592
Residential mortgage:					
Permanent mortgage	1,068,412	1,047,785	1,043,435	1,013,965	989,040
Permanent mortgages guaranteed by U.S. government agencies	169,653	177,880	197,506	187,370	191,729
Home equity	704,185	720,104	732,745	744,415	758,429
Total residential mortgage	1,942,250	1,945,769	1,973,686	1,945,750	1,939,198
Personal	1,000,187	965,632	965,776	947,008	917,900
Total	$18,003,696	$17,337,850	$17,153,424	$17,206,834	$17,183,645

Commercial

Commercial loans represent loans for working capital, facilities acquisition or expansion, purchases of equipment and other needs of commercial customers primarily located within our geographical footprint. Commercial loans are underwritten individually and represent ongoing relationships based on a thorough knowledge of the customer, the customer’s industry and market. While commercial loans are generally secured by the customer’s assets including real property, inventory, accounts receivable, operating equipment, interests in mineral rights and other property and may also include personal guarantees of the owners and related parties, the primary source of repayment of the loans is the ongoing cash flow from operations of the customer’s business. Inherent lending risks are centrally monitored on a continuous basis from underwriting throughout the life of the loan for compliance with commercial lending policies.

Commercial loans totaled $11.3 billion or 63 percent of the loan portfolio at June 30, 2018, an increase of $429 million over March 31, 2018. Energy loan balances grew by $178 million. Wholesale/retail sector loan balances grew by $168 million. Manufacturing sector loan balances were up $88 million. Service sector loans increased $16 million, mostly offset by a $14 million decrease in other commercial and industrial loans.

Table 13 presents the commercial sector of our loan portfolio distributed primarily by collateral location. Loans for which collateral location is less relevant, such as unsecured loans and reserve-based energy loans, are distributed by the borrower's primary operating location.

Table 13 -- Commercial Loans by Collateral Location
(In thousands)

	Oklahoma	Texas	New Mexico	Arkansas	Colorado	Arizona	Kansas/Missouri	Other	Total
Energy	$632,907	$1,709,471	$40,449	$2,926	$340,671	$3,966	$72,024	$344,805	$3,147,219
Services	716,767	781,431	169,346	9,984	346,505	235,767	303,911	380,788	2,944,499
Healthcare	247,040	344,481	112,149	79,734	161,539	109,858	259,972	1,038,949	2,353,722
Wholesale/retail	403,298	598,929	41,197	29,880	92,243	63,295	80,879	389,833	1,699,554
Manufacturing	86,310	197,925	157	4,638	95,007	91,147	90,100	82,532	647,816
Other commercial and industrial	107,355	142,321	2,504	61,951	8,341	1,288	61,947	170,522	556,229
Total commercial loans	$2,193,677	$3,774,558	$365,802	$189,113	$1,044,306	$505,321	$868,833	$2,407,429	$11,349,039

The majority of the collateral securing our commercial loan portfolio is located within our geographical footprint with 33 percent concentrated in the Texas market and 19 percent concentrated in the Oklahoma market. At June 30, 2018, the Other category is primarily composed of California - $287 million or 3 percent of the commercial loan portfolio, Florida - $228 million or 2 percent of the commercial loan portfolio, Louisiana - $160 million or 1 percent of the commercial loan portfolio, Pennsylvania - $142 million or 1 percent of the commercial loan portfolio, Ohio - $125 million or 1 percent of the commercial loan portfolio and North Carolina - $111 million or 1 percent of the commercial loan portfolio. All other states individually represent less than one percent of total commercial loans.

Supporting the energy industry with loans to producers and other energy-related entities has been a hallmark of the Company since its founding and represents a large portion of our commercial loan portfolio. In addition, energy production and related industries have a significant impact on the economy in our primary markets. Loans collateralized by oil and gas properties are subject to a semi-annual engineering review by our internal staff of petroleum engineers. This review is utilized as the basis for developing the expected cash flows supporting the loan amount. The projected cash flows are discounted according to risk characteristics of the underlying oil and gas properties. Loans are evaluated to demonstrate with reasonable certainty that crude oil, natural gas and natural gas liquids can be recovered from known oil and gas reservoirs under existing economic and operating conditions at current pricing levels and with existing conventional equipment and operating methods and costs. As part of our evaluation of credit quality, we analyze rigorous stress tests over a range of commodity prices and take proactive steps to mitigate risk when appropriate.

Outstanding energy loans totaled $3.1 billion or 17 percent of total loans at June 30, 2018. Unfunded energy loan commitments were $3.0 billion at June 30, 2018, up $80 million over March 31, 2018. Approximately $2.6 billion of energy loans were to oil and gas producers, growing $104 million over March 31, 2018. The majority of this portfolio is first lien, senior secured, reserve-based lending, which we believe is the lowest risk form of energy lending. Approximately 56 percent of the committed production loans are secured by properties primarily producing oil and 44 percent of the committed production loans are secured by properties primarily producing natural gas. Loans to midstream oil and gas companies totaled $370 million at June 30, 2018, an increase of $71 million over March 31, 2018. Loans to borrowers that provide services to the energy industry totaled $139 million at June 30, 2018, up $26 million over the prior quarter. Loans to other energy borrowers, including those engaged in wholesale or retail energy

sales, totaled $36 million, a $23 million decrease compared to the prior quarter.

The services sector of the loan portfolio totaled $2.9 billion or 16 percent of total loans and consists of a large number of loans to a variety of businesses, including governmental, educational services, consumer services, financial services and loans to entities providing services for real estate and construction. Service sector loans increased by $16 million over March 31, 2018. Loans to governmental entities totaled $537 million at June 30, 2018. Approximately $1.4 billion of the services category is made up of loans with individual balances of less than $10 million. Service sector loans are generally secured by the assets of the borrower with repayment coming from the cash flows of ongoing operations of the customer's business.

The healthcare sector of the loan portfolio totaled $2.4 billion or 13 percent of total loans and consists primarily of loans for the development and operation of senior housing and care facilities, including independent living, assisted living and skilled nursing. Healthcare also includes loans to hospitals and other medical service providers.

We participate in shared national credits when appropriate to obtain or maintain business relationships with local customers. Shared national credits are defined by banking regulators as credits of more than $100 million and with three or more non-affiliated banks as participants. At June 30, 2018, the outstanding principal balance of these loans totaled $3.9 billion. Substantially all of these loans are to borrowers with local market relationships. We serve as the agent lender in approximately 16 percent of our shared national credits, based on dollars committed. We hold shared credits to the same standard of analysis and perform the same level of review as internally originated credits. Our lending policies generally avoid loans in which we do not have the opportunity to maintain or achieve other business relationships with the customer. In addition to management's quarterly assessment of credit risk, banking regulators annually review a sample of shared national credits for proper risk grading.

Commercial Real Estate

Commercial real estate represents loans for the construction of buildings or other improvements to real estate and property held by borrowers for investment purposes generally within our geographical footprint, with larger concentrations in Texas and Oklahoma which represent 33% and 12% of the total commercial real estate portfolio at June 30, 2018, respectively. We require collateral values in excess of the loan amounts, demonstrated cash flows in excess of expected debt service requirements, equity investment in the project and a portion of the project already sold, leased or permanent financing already secured. The expected cash flows from all significant new or renewed income producing property commitments are stress tested to reflect the risks in varying interest rates, vacancy rates and rental rates. As with commercial loans, inherent lending risks are centrally monitored on a continuous basis from underwriting throughout the life of the loan for compliance with applicable lending policies.

Commercial real estate loans totaled $3.7 billion or 21% of the loan portfolio at June 30, 2018. The outstanding balance of commercial real estate loans increased $205 million during the second quarter of 2018. Loans secured by office buildings increased $83 million. Multifamily residential loans increased $48 million. Loans secured by industrial properties grew by $40 million. Loans secured by retail facilities and other commercial real estate loans increased $18 million and $15 million, respectively. The commercial real estate loan balance as a percentage of our total loan portfolio has ranged from 19 percent to 23 percent over the past five years.

The commercial real estate sector of our loan portfolio distributed by collateral location follows in Table 14.

Table 14 -- Commercial Real Estate Loans by Collateral Location
(In thousands)

	Oklahoma	Texas	New Mexico	Arkansas	Colorado	Arizona	Kansas/Missouri	Other	Total
Multifamily	$127,373	$485,735	$26,653	$26,641	$81,571	$66,414	$ 129,248	$113,349	$1,056,984
Office	106,169	222,686	88,374	12,870	31,988	72,274	40,348	245,418	820,127
Retail	56,301	284,347	121,079	7,338	42,941	29,617	15,620	210,781	768,024
Industrial	71,500	180,920	23,278	104	9,087	7,142	43,777	317,576	653,384
Residential construction and land development	18,049	20,601	18,216	2,102	23,817	2,026	12,908	21,280	118,999
Other commercial real estate	51,810	35,019	10,956	1,580	12,102	24,035	20,183	139,017	294,702
Total commercial	$431,202	$1,229,308	$288,556	$50,635	$201,506	$201,508	$ 262,084	$1,047,421	$3,712,220

real estate
loans

The Other category is primarily composed of California - $203 million or 5 percent of the commercial real estate portfolio, Florida - $114 million or 3 percent of the commercial real estate portfolio and Utah - $103 million or 3 percent of the commercial real estate portfolio. All other states represent less than 3% individually.

While recent changes nationally in consumer purchasing trends from brick-and-mortar stores to online has created concern with regards to retail lending, our credit quality remains very good. The portfolio is highly diversified with no material exposure to a single borrower or tenant.

Residential Mortgage and Personal

Residential mortgage loans provide funds for our customers to purchase or refinance their primary residence or to borrow against the equity in their home. Residential mortgage loans are secured by a first or second-mortgage on the customer's primary residence. Personal loans consist primarily of loans to wealth management clients secured by the cash surrender value of insurance policies and marketable securities. It also includes direct loans secured by and for the purchase of automobiles, recreational and marine equipment as well as unsecured loans. Residential mortgage and personal loans are made in accordance with underwriting policies we believe to be conservative and are fully documented. Loans may be individually underwritten or credit scored based on size and other criteria. Credit scoring is assessed based on significant credit characteristics including credit history, residential and employment stability.

Residential mortgage loans totaled $1.9 billion, a decrease of $3.5 million compared to March 31, 2018. In general, we sell the majority of our conforming fixed rate loan originations in the secondary market and retain the majority of our non-conforming and adjustable-rate mortgage loans. We have no concentration in sub-prime residential mortgage loans. Our mortgage loan portfolio does not include payment option adjustable rate mortgage loans or adjustable rate mortgage loans with initial rates that are below market. Collateral for 95% of our residential mortgage loan portfolio is located within our geographical footprint.

The majority of our permanent mortgage loan portfolio is composed of various non-conforming mortgage programs to support customer relationships including jumbo mortgage loans, non-builder construction loans and special loan programs for high net worth individuals or certain professionals. Jumbo loans may be fixed or variable rate and are fully amortizing. The size of jumbo loans exceeds maximums set under government sponsored entity standards, but otherwise generally conform to those standards. These loans generally require a minimum FICO score of 720 and a maximum debt-to-income ratio ("DTI") of 38 percent. Loan-to-value ratios ("LTV") are tiered from 60 percent to 100 percent, depending on the market. Special mortgage programs include fixed and variable rate fully amortizing loans tailored to the needs of certain healthcare professionals. Variable rate loans are fully indexed at origination and may have fixed rates for three to ten years, then adjust annually thereafter.

At June 30, 2018, $170 million of permanent residential mortgage loans are guaranteed by U.S. government agencies. We have limited credit exposure on loans guaranteed by the agencies. This amount includes residential mortgage loans previously sold into GNMA mortgage pools that the Company may repurchase when certain defined delinquency criteria are met. Because of this repurchase right, the Company is deemed to have regained effective control over these loans and must include them on the Consolidated Balance Sheet. Permanent residential mortgage loans guaranteed by U.S. government agencies decreased $8.2 million compared to March 31, 2018.

Home equity loans totaled $704 million at June 30, 2018, a $16 million decrease compared to March 31, 2018. Our home equity loan portfolio is primarily composed of first-lien, fully amortizing home equity loans. Home equity loans generally require a minimum FICO score of 700 and a maximum DTI of 50 percent. The maximum loan amount available for our home equity loan products is generally $400 thousand. Revolving loans have a 10 year revolving period followed by a 15 year term of amortizing repayment. Interest-only home equity loans have a 5 year revolving period followed by a 15 year term of amortizing repayments and may not be extended for any additional revolving time. All other home equity loans may be extended at management's discretion for an additional 5 year revolving term subject to an update of certain credit information. A summary of our home equity loan portfolio at June 30, 2018 by lien position and amortizing status follows in Table 15.

Table 15 -- Home Equity Loans
(In thousands)

	Revolving	Amortizing	Total
First lien	$ 69,587	$ 363,904	$ 433,491

Junior lien	149,676	121,018	270,694
Total home equity	$ 219,263	$ 484,922	$ 704,185

The distribution of residential mortgage and personal loans at June 30, 2018 is as follows in Table 16. Residential mortgage loans are distributed by collateral location. Personal loans are generally distributed by borrower location.

Table 16 -- Residential Mortgage and Personal Loans by Collateral Location
(In thousands)

	Oklahoma	Texas	New Mexico	Arkansas	Colorado	Arizona	Kansas/Missouri	Other	Total
Residential mortgage:									
Permanent mortgage	$170,130	$434,582	$52,890	$13,430	$186,125	$100,536	$ 61,394	$49,325	$1,068,412
Permanent mortgages guaranteed by U.S. government agencies	42,443	31,875	33,138	7,374	3,781	843	11,065	39,134	169,653
Home equity	373,250	132,689	85,643	5,794	39,189	9,921	55,093	2,606	704,185
Total residential mortgage	$585,823	$599,146	$171,671	$26,598	$229,095	$111,300	$ 127,552	$91,065	$1,942,250
Personal	$316,308	$420,736	$11,251	$12,480	$62,136	$59,626	$ 64,596	$53,054	$1,000,187

The Company secondarily evaluates loan portfolio performance based on the primary geographical market managing the loan. Loans attributed to a geographical market may not represent the location of the borrower or the collateral. All permanent mortgage loans serviced by our mortgage banking unit and held for investment by the Company are centrally managed by the Bank of Oklahoma.

Table 17 -- Loans Managed by Primary Geographical Market
(In thousands)

	June 30, 2018	Mar. 31, 2018	Dec. 31, 2017	Sept. 30, 2017	June 30, 2017
Bank of Oklahoma:					
Commercial	$3,465,407	$3,265,013	$3,238,720	$3,408,973	$3,369,967
Commercial real estate	662,665	668,031	682,037	712,915	667,932
Residential mortgage	1,403,658	1,419,281	1,435,432	1,405,900	1,398,021
Personal	362,846	353,128	342,212	322,320	318,016
Total Bank of Oklahoma	5,894,576	5,705,453	5,698,401	5,850,108	5,753,936
Bank of Texas:					
Commercial	4,922,451	4,715,841	4,520,401	4,434,595	4,339,634
Commercial real estate	1,336,101	1,254,421	1,261,864	1,236,702	1,360,164
Residential mortgage	243,400	229,761	233,675	229,993	232,074
Personal	394,021	363,608	375,084	375,173	354,222
Total Bank of Texas	6,895,973	6,563,631	6,391,024	6,276,463	6,286,094
Bank of Albuquerque:					
Commercial	305,167	315,701	343,296	367,747	369,370
Commercial real estate	386,878	348,485	341,282	319,208	324,405
Residential mortgage	90,581	93,490	98,018	101,983	103,849
Personal	11,107	11,667	11,721	12,953	12,439
Total Bank of Albuquerque	793,733	769,343	794,317	801,891	810,063
Bank of Arkansas:					
Commercial	93,217	94,430	95,644	91,051	85,020
Commercial real estate	90,807	88,700	87,393	80,917	73,943
Residential mortgage	6,927	7,033	6,596	6,318	6,395
Personal	12,331	9,916	9,992	10,388	11,993
Total Bank of Arkansas	203,282	200,079	199,625	188,674	177,351
Colorado State Bank & Trust:					
Commercial	1,165,721	1,180,655	1,130,714	1,124,200	1,065,780
Commercial real estate	267,065	210,801	174,201	186,427	255,379
Residential mortgage	64,839	64,530	63,350	63,734	63,346
Personal	60,504	63,118	63,115	60,513	56,187
Total Colorado State Bank & Trust	1,558,129	1,519,104	1,431,380	1,434,874	1,440,692
Bank of Arizona:					
Commercial	681,852	624,106	687,792	634,809	617,759
Commercial real estate	710,784	672,319	660,094	706,188	705,858
Residential mortgage	47,010	39,227	41,771	40,730	37,034
Personal	65,541	57,023	57,140	55,050	55,528

Total Bank of Arizona	1,505,187	1,392,675	1,446,797	1,436,777	1,416,179
Mobank (Kansas City):					
Commercial	715,224	723,921	717,408	734,559	790,425
Commercial real estate	257,920	264,025	273,116	275,785	300,911
Residential mortgage	85,835	92,447	94,844	97,092	98,479
Personal	93,837	107,172	106,512	110,611	109,515
Total Mobank (Kansas City)	1,152,816	1,187,565	1,191,880	1,218,047	1,299,330
Total BOK Financial loans	$18,003,696	$17,337,850	$17,153,424	$17,206,834	$17,183,645

Loan Commitments

We enter into certain off-balance sheet arrangements in the normal course of business as shown in Table 18. Loan commitments may be unconditional obligations to provide financing or conditional obligations that depend on the borrower's financial condition, collateral value or other factors. Standby letters of credit are unconditional commitments to guarantee the performance of our customer to a third party. Since some of these commitments are expected to expire before being drawn upon, the total commitment amounts do not necessarily represent future cash requirements.

Table 18 – Off-Balance Sheet Credit Commitments
(In thousands)

	June 30, 2018	Mar. 31, 2018	Dec. 31, 2017	Sept. 30, 2017	June 30, 2017
Loan commitments	$10,294,211	$10,249,729	$9,958,080	$9,693,489	$9,632,911
Standby letters of credit	659,867	664,342	647,653	665,513	614,852
Mortgage loans sold with recourse	116,269	121,197	125,127	128,681	133,896

We have off-balance sheet commitments related to certain residential mortgage loans originated under community development loan programs that were sold to a U.S. government agency with full recourse. These mortgage loans were underwritten to standards approved by the agencies, including full documentation and originated under programs available only for owner-occupied properties. The Company no longer sells residential mortgage loans with recourse. We are obligated to repurchase these loans for the life of these loans in the event of foreclosure for the unpaid principal and interest at the time of foreclosure. Substantially all of these loans are to borrowers in our primary markets including $70 million to borrowers in Oklahoma, $12 million to borrowers in Arkansas and $12 million to borrowers in New Mexico. An accrual related to this off-balance sheet risk is included in Other liabilities in the Consolidated Balance Sheets and totaled $3.5 million at June 30, 2018 and 3.7 million at March 31, 2018 and $3.9 million at June 30, 2017.

We also have an off-balance sheet obligation to repurchase residential mortgage loans sold to government sponsored entities through our mortgage banking activities due to standard representations and warranties made under contractual agreements and to service loans in accordance with investor guidelines. The Company has established accruals for losses related to these obligations that are included in Other liabilities in the Consolidated Balance Sheets and in Mortgage banking costs in the Consolidated Statements of Earnings.

For the period from 2010 through the second quarter of 2018 combined, approximately 17% of repurchase requests have currently resulted in actual repurchases or indemnification by the Company. There were no loans repurchased from the agencies during the second quarter of 2018. There were no loans with indemnification paid during the second quarter of 2018.

A summary of unresolved deficiency requests from the agencies follows (in thousands, except for number of unresolved deficiency requests):

	June 30, 2018		2017	
Number of unresolved deficiency requests	179		206	
Aggregate outstanding principal balance subject to unresolved deficiency requests	$	8,394	$	13,370

Unpaid principal balance subject to indemnification by the Company	4,741	5,074

The accrual for potential loan repurchases under representations and warranties totaled $1.1 million at June 30, 2018, $1.2 million at March 31, 2018, and $1.6 million at June 30, 2017.

Customer Derivative Programs

We offer programs that permit our customers to hedge various risks, including fluctuations in energy, cattle and other agricultural product prices, interest rates and foreign exchange rates. Each of these programs work essentially the same way. Derivative contracts are executed between the customers and the Company. Offsetting contracts are executed between the Company and selected counterparties to minimize market risk due to changes in commodity prices, interest rates or foreign exchange rates. The counterparty contracts are identical to the customer contracts, except for a fixed pricing spread or a fee paid to us as compensation for administrative costs, credit risk and profit.

The customer derivative programs create credit risk for potential amounts due to the Company from our customers and from the counterparties. Customer credit risk is monitored through existing credit policies and procedures. The effects of changes in commodity prices, interest rates or foreign exchange rates are evaluated across a range of possible scenarios to determine the maximum exposure we are willing to have individually to any customer. Customers may also be required to provide cash margin or other collateral in conjunction with our credit agreements to further limit our credit risk.

Counterparty credit risk is evaluated through existing policies and procedures. This evaluation considers the total relationship between BOK Financial and each of the counterparties. Individual limits are established by management, approved by Credit Administration and reviewed by the Asset/Liability Committee. Margin collateral is required if the exposure between the Company and any counterparty exceeds established limits. Based on declines in the counterparties' credit ratings, these limits may be reduced and additional margin collateral may be required.

A deterioration of the credit standing of one or more of the customers or counterparties to these contracts may result in BOK Financial recognizing a loss as the fair value of the affected contracts may no longer move in tandem with the offsetting contracts. This occurs if the credit standing of the customer or counterparty deteriorated such that either the fair value of underlying collateral no longer supported the contract or the customer or the counterparty's ability to provide margin collateral was impaired. Credit losses on customer derivatives reduce brokerage and trading revenue in the Consolidated Statements of Earnings.

Derivative contracts are carried at fair value. At June 30, 2018, the net fair values of derivative contracts, before consideration of cash margin, reported as assets under these programs totaled $382 million compared to $292 million at March 31, 2018. At June 30, 2018, the net fair value of our derivative contracts included $171 million for foreign exchange contracts, $131 million for energy contracts, $41 million for interest rate swaps and $35 million of to-be-announced residential mortgage-backed securities. The aggregate net fair value of derivative contracts, before consideration of cash margin, held under these programs reported as liabilities totaled $364 million at June 30, 2018 and $280 million at March 31, 2018.

At June 30, 2018, total derivative assets were reduced by $13 million of cash collateral received from counterparties and total derivative liabilities were reduced by $150 million of cash collateral paid to counterparties related to instruments executed with the same counterparty under a master netting agreement.

A table showing the notional and fair value of derivative assets and liabilities on both a gross and net basis is presented in Note 3 to the Consolidated Financial Statements.

The fair value of derivative contracts reported as assets under these programs, net of cash margin held by the Company, by category of debtor at June 30, 2018 follows in Table 19.

Table 19 -- Fair Value of Derivative Contracts
(In thousands)

Customers	$253,096
Banks and other financial institutions	96,206
Exchanges and clearing organizations	19,724
Fair value of customer risk management program asset derivative contracts, net	$369,026

At June 30, 2018, our largest derivative exposure was to an exchange for interest rate swap derivative contracts of $19 million.

Our customer derivative program also introduces liquidity and capital risk. We are required to provide cash margin to certain counterparties when the net negative fair value of the contracts exceeds established limits. Also, changes in commodity prices affect the amount of regulatory capital we are required to hold as support for the fair value of our derivative assets. These risks are modeled as part of the management of these programs. Based on current prices, a decrease in market prices equivalent to $34.26 per barrel of oil would decrease the fair value of derivative assets by $106 million. An increase in prices equivalent to $84.27 per barrel of oil would increase the fair value of derivative assets by $118 million as current prices move further away from the fixed prices embedded in our existing contracts. Liquidity requirements of this program may also be affected by our credit rating. At June 30, 2018, a decrease in our credit rating to below investment grade did not have a significant impact on our obligation to post cash margin on existing contracts. The fair value of our to-be-announced residential mortgage-backed securities and interest rate swap derivative contracts is affected by changes in interest rates. Based on our assessment as of June 30, 2018, changes in interest rates would not materially impact regulatory capital or liquidity needed to support this portion of our customer derivative program.

Summary of Loan Loss Experience

We maintain an allowance for loan losses and an accrual for off-balance sheet credit risk. At June 30, 2018, the combined allowance for loan losses and off-balance sheet credit losses totaled $218 million or 1.21 percent of outstanding loans and 138 percent of nonaccruing loans, excluding loans guaranteed by U.S. government agencies. The allowance for loan losses was $215 million and the accrual for off-balance sheet credit losses was $2.4 million. At March 31, 2018, the combined allowance for credit losses was $228 million or 1.32 percent of outstanding loans and 133 percent of nonaccruing loans, excluding loans guaranteed by U.S. government agencies. The allowance for loan losses was $224 million and the accrual for off-balance sheet credit losses was $4.1 million.

The provision for credit losses is the amount necessary to maintain the allowance for loan losses and an accrual for off-balance sheet credit risk at an amount determined by management to be appropriate based on its evaluation. The provision includes the combined charge to expense for both the allowance for loan losses and the accrual for off-balance sheet credit risk. All losses incurred from lending activities will ultimately be reflected in charge-offs against the allowance for loan losses following funds advanced against outstanding commitments. Based on an evaluation of all credit factors, including overall loan growth, the continued trend of improvements in nonaccruing and potential problem loans, and net charge-offs, the Company determined that no provision for credit losses was appropriate for the second quarter of 2018. The Company recorded a $5.0 million negative provision for the first quarter of 2018.

Table 20 -- Summary of Loan Loss Experience
(In thousands)

	Three Months Ended				
	June 30, 2018	Mar. 31, 2018	Dec. 31, 2017	Sept. 30, 2017	June 30, 2017
Allowance for loan losses:					
Beginning balance	$223,967	$230,682	$247,703	$250,061	$248,710
Loans charged off:					
Commercial	(13,775)	(1,563)	(13,254)	(4,429)	(1,703)
Commercial real estate	—	—	—	—	(76)
Residential mortgage	(135)	(100)	(205)	(168)	(40)
Personal	(1,195)	(1,227)	(1,290)	(1,228)	(1,053)
Total	(15,105)	(2,890)	(14,749)	(5,825)	(2,872)
Recoveries of loans previously charged off:					
Commercial	298	488	1,982	1,014	283
Commercial real estate	3,097	183	258	739	208
Residential mortgage	505	242	229	134	169
Personal	678	663	592	550	554
Total	4,578	1,576	3,061	2,437	1,214
Net loans recovered (charged off)	(10,527)	(1,314)	(11,688)	(3,388)	(1,658)
Provision for loan losses	1,702	(5,401)	(5,333)	1,030	3,009
Ending balance	$215,142	$223,967	$230,682	$247,703	$250,061
Accrual for off-balance sheet credit losses:					
Beginning balance	$4,135	$3,734	$5,401	$6,431	$9,440
Provision for off-balance sheet credit losses	(1,702)	401	(1,667)	(1,030)	(3,009)
Ending balance	$2,433	$4,135	$3,734	$5,401	$6,431
Total combined provision for credit losses	$—	$(5,000)	$(7,000)	$—	$—
Allowance for loan losses to loans outstanding at period-end	1.19%	1.29%	1.34%	1.44%	1.46%
Net charge-offs (recoveries) (annualized) to average loans	0.24%	0.03%	0.27%	0.08%	0.04%
Total provision for credit losses (annualized) to average loans	—%	(0.12)%	(0.16)%	—%	—%
Recoveries to gross charge-offs	30.31%	54.53%	20.75%	41.84%	42.27%
Accrual for off-balance sheet credit losses to off-balance sheet credit commitments	0.02%	0.04%	0.04%	0.05%	0.06%
Combined allowance for credit losses to loans outstanding at period-end	1.21%	1.32%	1.37%	1.47%	1.49%

Allowance for Loan Losses

The appropriateness of the allowance for loan losses is assessed by management based on an ongoing quarterly evaluation of the probable estimated losses inherent in the portfolio. The allowance consists of specific allowances attributed to certain impaired loans, general allowances based on estimated loss rates by loan class and non-specific allowances based on general economic conditions, concentration in loans with large balances and other relevant factors.

Loans are considered to be impaired when it is probable that we will not collect all amounts due according to the original contractual terms of the loan agreement. This includes all nonaccruing loans, all loans modified in troubled debt restructurings and all government guaranteed loans repurchased from GNMA pools. A specific allowance is

required when the outstanding principal balance of the loan is not supported by either the discounted cash flows expected to be received from the borrower or the fair value of collateral for collateral dependent loans. At June 30, 2018, impaired loans totaled $328 million, including $60 million with specific allowances of $15 million and $268 million with no specific allowances. At March 31, 2018, impaired loans totaled $349 million, including $74 million of impaired loans with specific allowances of $13 million and $275 million with no specific allowances.

General allowances for unimpaired loans are based on an estimated loss rate by loan class. Estimated loss rates for risk-graded loans are either increased or decreased based on changes in risk grading for each loan class. Estimated loss rates for both risk-graded and non-risk graded loans may be further adjusted for inherent risk identified for the given loan class which have not yet been captured in the loss rate.

The aggregate amount of general allowances for all unimpaired loans totaled $184 million at June 30, 2018. The general allowance for unimpaired loans decreased $6.2 million compared to March 31, 2018, primarily related to the commercial loan segment, partially offset by an increase related to the commercial real estate segment.

Nonspecific allowances are maintained for risks beyond factors specific to a particular portfolio segment or loan class. These factors include trends in the economy in our primary lending areas, concentrations in loans with large balances and other relevant factors. Nonspecific allowances totaled $15 million at June 30, 2018, a $4.5 million decrease compared to March 31, 2018. The nonspecific allowance decreased related to the reversal of the nonspecific allowance related to the estimated long-term impact of Hurricane Harvey in 2017 on the Houston, Texas market as this impact is now fully reflected in estimated loss rates.

An allocation of the allowance for loan losses by portfolio segment is included in Note 4 to the Consolidated Financial Statements.

Our loan monitoring process also identified certain accruing substandard loans that possess more than the normal amount of risk due to deterioration in the financial condition of the borrower or the value of the collateral. Because the borrowers are still performing in accordance with the original terms of the loan agreements, and no loss of principal or interest is anticipated, these loans were not included in nonperforming assets. Known information does, however, cause management concern as to the borrowers' ability to comply with current repayment terms. These potential problem loans totaled $140 million at June 30, 2018 and were primarily composed of $93 million or 3 percent of energy loans, $17 million or 3 percent of manufacturing sector loans and $17 million or 1 percent of healthcare sector loans. Potential problem loans totaled $222 million at March 31, 2018.

Based on regulatory guidelines, other loans especially mentioned are in compliance with the original terms of the agreement but may have a weakness that deserves management's close attention. Other loans especially mentioned totaled $124 million at June 30, 2018 and were composed primarily of $52 million or 2 percent of outstanding energy loans, $31 million or 1 percent of service sector loans and $21 million or 3 percent of commercial real estate loans secured by retail facilities. Other loans especially mentioned totaled $78 million at March 31, 2018.

We updated our semi-annual energy loan portfolio stress test at June 30, 2018 to estimate how the energy portfolio may respond in a prolonged low-price environment. Stress test assumptions applied the five year forward pricing curve which decreases from a starting price of $2.29 per million BTUs for natural gas and $51.70 per barrel of oil to $2.17 per million BTUs for natural gas and $43.37 per barrel of oil in year 5 and then escalated 3 percent annually for years six through ten to a maximum of $2.50 and $49.99, respectively. Results of the stress test were considered in conjunction with the determination of the allowance for credit losses.

Net Loans Charged Off

Loans are charged off against the allowance for loan losses when the loan balance or a portion of the loan balance is no longer covered by the paying capacity of the borrower based on an evaluation of available cash resources and collateral value. Internally risk graded loans are evaluated quarterly and charge-offs are taken in the quarter in which the loss is identified. Non-risk graded loans are generally charged off when payments are between 60 days and 180 days past due, depending on loan class. In addition, non-risk graded loans are generally charged-down to collateral value within 60 days of being notified of a borrower's bankruptcy filing, regardless of payment status.

BOK Financial had net charge-offs of $10.5 million in the second quarter of 2018, compared to net charge-offs of $1.3 million in the first quarter of 2018 and a net charge-offs of $1.7 million in the second quarter of 2017. The ratio of net loans charged off to average loans on an annualized basis was 0.24 percent for the second quarter of 2018, compared with 0.03 percent for the first quarter of 2018 and 0.04 percent for the second quarter of 2017.

Net charge-offs of commercial loans were $13.5 million in the second quarter of 2018, primarily related to a single energy production borrower and single healthcare sector borrower. Net commercial real estate loan recoveries were $3.1 million in the second quarter of 2018. Net charge-offs of residential mortgage loans were $370 thousand and net charge-offs of personal loans were $517 thousand for the second quarter. Personal loan net charge-offs include deposit account overdraft losses.

Nonperforming Assets

Table 21 -- Nonperforming Assets
(In thousands)

	June 30, 2018	Mar. 31, 2018	Dec. 31, 2017	Sept. 30, 2017	June 30, 2017
Nonaccruing loans:					
Commercial	$120,978	$131,460	$137,303	$176,900	$197,157
Commercial real estate	1,996	2,470	2,855	2,975	3,775
Residential mortgage	42,343	45,794	47,447	45,506	44,235
Personal	340	340	269	255	272
Total nonaccruing loans	165,657	180,064	187,874	225,636	245,439
Accruing renegotiated loans guaranteed by U.S. government agencies	75,374	74,418	73,994	69,440	80,624
Real estate and other repossessed assets	27,891	23,652	28,437	32,535	39,436
Total nonperforming assets	$268,922	$278,134	$290,305	$327,611	$365,499
Total nonperforming assets excluding those guaranteed by U.S. government agencies	$185,981	$194,833	$207,132	$249,280	$275,823
Nonaccruing loans by loan portfolio segment and class:					
Commercial:					
Energy	$65,597	$89,942	$92,284	$110,683	$123,992
Services	4,377	2,109	2,620	1,174	7,754
Healthcare	16,125	15,342	14,765	24,446	24,505
Wholesale/retail	14,095	2,564	2,574	1,893	10,620
Manufacturing	2,991	3,002	5,962	9,059	9,656
Other commercial and industrial	17,793	18,501	19,098	29,645	20,630
Total commercial	120,978	131,460	137,303	176,900	197,157
Commercial real estate:					
Multifamily	—	—	—	—	10
Retail	1,068	264	276	289	301
Office	275	275	275	275	396
Industrial	—	—	—	—	—
Residential construction and land development	350	1,613	1,832	1,924	2,051
Other commercial real estate	303	318	472	487	1,017
Total commercial real estate	1,996	2,470	2,855	2,975	3,775
Residential mortgage:					
Permanent mortgage	23,105	24,578	25,193	24,623	23,415
Permanent mortgage guaranteed by U.S. government agencies	7,567	8,883	9,179	8,891	9,052
Home equity	11,671	12,333	13,075	11,992	11,768
Total residential mortgage	42,343	45,794	47,447	45,506	44,235
Personal	340	340	269	255	272
Total nonaccruing loans	$165,657				