BOK FINANCIAL CORP ET AL
Form 10-Q
October 31, 2016

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 September 30, 2016
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 ¨

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: 65,910,454 shares of common stock ($.00006 par value) as of September 30, 2016.

BOK Financial Corporation
Form 10-Q
Quarter Ended September 30, 2016

Index

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

BOK Financial Corporation ("the Company") reported net income of $74.3 million or $1.13 per diluted share for the third quarter of 2016, compared to $74.9 million or $1.09 per diluted share for the third quarter of 2015 and $65.8 million or $1.00 per diluted share for the second quarter of 2016.

Highlights of the third quarter of 2016 included:

- Net interest revenue totaled $187.8 million for the third quarter of 2016, compared to $178.6 million for the third quarter of 2015 and $182.6 million for the second quarter of 2016. Net interest revenue increased over the prior year primarily due to growth in average earning assets. Average earning assets were $29.1 billion for the third quarter of 2016 and $27.9 billion for the third quarter of 2015. Net interest margin was 2.64 percent for the third quarter of 2016. Net interest margin was 2.61 percent for the third quarter of 2015 and 2.63 percent for the second quarter of 2016.
- Fees and commissions revenue totaled $185.3 million for the third quarter of 2016, up $20.7 million over the third quarter of 2015. All revenue categories grew over the prior year, led by mortgage banking and brokerage and trading revenue. Fees and commissions revenue increased $1.8 million over the second quarter of 2016. Growth in mortgage banking revenue and deposit service charges and fees was partially offset by decreases in brokerage and trading revenue, transaction card revenue and fiduciary and asset management revenue.
- Changes in the fair value of mortgage servicing rights, net of economic hedges, increased pre-tax net income by $1.2 million in the third quarter of 2016 , decreased pre-tax net income by $4.4 million in the third quarter of 2015 and decreased pre-tax net income by $1.2 million in the second quarter of 2016.
- Operating expenses totaled $262.1 million for the third quarter of 2016, an increase of $37.5 million over the third quarter of 2015. Personnel expense increased $14.1 million primarily due to increased incentive compensation expense, regular compensation costs and higher employee healthcare costs. Non-personnel expense increased $23.4 million largely due to increased mortgage banking expenses, litigation accruals, deposit insurance expense and professional fees and services expense. Operating expenses increased $7.4 million over the previous quarter primarily due to increased litigation accruals and deposit insurance expense.
- The Company recorded a $10.0 million provision for credit losses in the third quarter of 2016. The Company recorded a $20.0 million provision in the second quarter of 2016 and a $7.5 million provision for credit losses in the third quarter of 2015. Gross charge-offs were $8.1 million in the third quarter of 2016, $5.3 million in the third quarter of 2015 and $8.8 million in the second quarter of 2016. Recoveries were $2.0 million in the third quarter of 2016, compared to $3.5 million in the third quarter of 2015 and $1.4 million in the second quarter of 2016.
- The combined allowance for credit losses totaled $256 million or 1.56 percent of outstanding loans at September 30, 2016, compared to $252 million or 1.54 percent of outstanding loans at June 30, 2016. The portion of the combined allowance attributed to the energy portfolio totaled 3.67 percent of outstanding energy loans at September 30, 2016, an increase from 3.58 percent of outstanding energy loans at June 30, 2016.
- Nonperforming assets that are not guaranteed by U.S. government agencies totaled $253 million or 1.55 percent of outstanding loans and repossessed assets (excluding those guaranteed by U.S. government agencies) at September 30, 2016 and $251 million or 1.55 percent of outstanding loans and repossessed assets (excluding those guaranteed by U.S. government agencies) at June 30, 2016. Nonperforming energy loans decreased $25 million during the third quarter.
- Average loans increased by $185 million over the previous quarter due primarily to a $239 million increase in commercial real estate loans, partially offset by a $156 million decrease in commercial loans, primarily due to a paydown of a single energy credit during the quarter. Period-end outstanding loan balances were $16.5 billion at September 30, 2016, a $58 million increase over June 30, 2016.
- Average deposits grew by $297 million over the previous quarter primarily due to growth in demand deposit and interest-bearing transaction account balances, partially offset by a decrease in time deposits. Period-end deposits were $21.1 billion at September 30, 2016, an increase of $336 million over June 30, 2016.

- 1 -

- The Company's common equity Tier 1 ratio was 11.99% at September 30, 2016. In addition, the Company's Tier 1 capital ratio was 11.99%, total capital ratio was 13.65% and leverage ratio was 9.06% at September 30, 2016. The Company's common equity Tier 1 ratio was 11.86% at June 30, 2016. In addition, the Company's Tier 1 capital ratio was 11.86%, total capital ratio was 13.51% and leverage ratio was 9.06% at June 30, 2016.
- The Company paid a regular quarterly cash dividend of $28 million or $0.43 per common share during the third quarter of 2016. On October 25, 2016, the board of directors approved an increase in the regular quarterly cash dividend to $0.44 per common share payable on or about November 28, 2016 to shareholders of record as of November 14, 2016.

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 $187.8 million for the third quarter of 2016 compared to $178.6 million for the third quarter of 2015 and $182.6 million for the second quarter of 2016. Net interest margin was 2.64 percent for the third quarter of 2016, 2.61 percent for the third quarter of 2015 and 2.63 percent for the second quarter of 2016.

Tax-equivalent net interest revenue increased $10.4 million over the third quarter of 2015. 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. Tax-equivalent net interest revenue increased $12.5 million primarily due to the growth in average loan balances. Net interest revenue decreased $2.1 million primarily due to the full quarter impact of the issuance of $150 million of 40 year 5.375% fixed rate subordinated debt in the second quarter that replaced $227 million of floating rating subordinated debt at 1.0105% at September 30, 2015. This floating rate debt was a year from maturity and was phased out from having any benefit to regulatory capital. The longer term fixed rate debt will better position us as interest rates rise. The benefit from a mix shift toward floating rate loans and higher short term interest rates was offset by increased borrowing costs.

The tax-equivalent yield on earning assets was 2.93 percent for the third quarter of 2016, up 10 basis points over the third quarter of 2015. Loan yields increased 9 basis points to 3.63% primarily due to the growth in variable rate loans and an increase in short-term interest rates. The yield on interest-bearing cash and cash equivalents increased 23 basis points. The available for sale securities portfolio yield was unchanged compared to the prior year at 2.01 percent. Funding costs were up 12 basis points over the third quarter of 2015. The cost of interest-bearing deposits decreased 2 basis points. The cost of other borrowed funds increased 26 basis points primarily due to an increase in the federal funds rate by the Federal Reserve in the fourth quarter of 2015. The cost of the subordinated debt was up 280 basis points as the existing lower variable rate debt was replaced by higher fixed rate debt. The benefit to net interest margin from earning assets funded by non-interest bearing liabilities was 15 basis points for the third quarter of 2016, up 5 basis points over the third quarter of 2015.

Average earning assets for the third quarter of 2016 increased $1.2 billion or 4 percent over the third quarter of 2015. Average loans, net of allowance for loan losses, increased $1.2 billion due primarily to growth in average commercial real estate and commercial loans. The average balance of trading securities increased $187 million and the average balance of restricted equity securities increased $80 million. The average balance of fair value option securities held as an economic hedge of our mortgage servicing rights decreased $163 million and the average balance of available for sale securities decreased $80 million. The average balance of investment securities decreased compared to the prior year, partially offset by an increase in the average balance of residential mortgage loans held for sale.

Average deposits increased $72 million over the third quarter of 2015. Average demand deposit balances grew by $502 million, partially offset by a $110 million decrease in interest-bearing transaction account balances and a $361 million decrease average time deposits. Average savings account balances also grew over the prior year. Average borrowed funds increased $1.4 billion over the third quarter of 2015, primarily due to increased borrowings from the Federal Home Loan Banks. The average balance of subordinated debentures increased $30 million.

Net interest margin increased 1 basis point over the second quarter of 2016. The yield on average earning assets increased 2 basis points. The loan portfolio yield increased by 5 basis points to 3.63 percent. The yield on the available for sale securities portfolio decreased 3 basis points to 2.01 percent. Funding costs were 0.44 percent, up 3 basis point over the prior quarter. The benefit to net interest margin from earning assets funded by non-interest bearing liabilities increased 2 basis points over the prior quarter.
Average earning assets increased $260 million over the second quarter of 2016. Average loan balances increased $185 million, primarily due to growth in commercial real estate balances. Average trading securities balances increased $129 million and the average balance of residential mortgage loans held for sale was up $45 million, partially offset by a $101 million decrease in the balance of fair value option securities held as an economic hedge of our mortgage servicing rights.
Average deposits increased $297 million compared to the previous quarter. Demand deposit balances increased $335 million and interest-bearing transaction account balances increased $60 million, partially offset by a $100 million decrease in time deposit balances. The average balance of borrowed funds increased $175 million over the second quarter of 2016. Increased borrowings from the Federal Home Loan Banks were partially offset by decreased federal funds sold 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 re-price within one year. These loans are funded primarily by deposit accounts that are either non-interest bearing, or that re-price more slowly than the loans. The result is a balance sheet that would be asset sensitive, which means that assets generally re-price more quickly than liabilities. Among the strategies that we use to manage toward a relatively rate-neutral position, we 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.

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 September 30, 2016 / 2015			Nine Months Ended September 30, 2016 / 2015		
		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	$1,209	$18	$ 1,191	$3,812	$(9)	$ 3,821
Trading securities	2,212	2,213	(1)	2,443	2,285	158
Investment securities:						
Taxable securities	(211)	(126)	(85)	(544)	(421)	(123)
Tax-exempt securities	383	(255)	638	1,156	(725)	1,881
Total investment securities	172	(381)	553	612	(1,146)	1,758
Available for sale securities:						
Taxable securities	(960)	(924)	(36)	1,857	(2,181)	4,038
Tax-exempt securities	71	(162)	233	50	(443)	493
Total available for sale securities	(889)	(1,086)	197	1,907	(2,624)	4,531
Fair value option securities	(949)	(355)	(594)	(621)	(211)	(410)
Restricted equity securities	708	1,245	(537)	3,057	4,429	(1,372)
Residential mortgage loans held for sale	(178)	362	(540)	(811)	(719)	(92)
Loans	14,579	11,157	3,422	36,913	36,580	333
Total tax-equivalent interest revenue	16,864	13,173	3,691	47,312	38,585	8,727
Interest expense:						
Transaction deposits	1,356	(69)	1,425	3,271	(376)	3,647
Savings deposits	3	11	(8)	1	14	(13)
Time deposits	(2,278)	(1,131)	(1,147)	(7,023)	(3,184)	(3,839)
Funds purchased	18	(1)	19	98	19	79
Repurchase agreements	4	(12)	16	—	(63)	63
Other borrowings	5,468	1,701	3,767	16,450	6,737	9,713
Subordinated debentures	1,872	178	1,694	(400)	(883)	483
Total interest expense	6,443	677	5,766	12,397	2,264	10,133
Tax-equivalent net interest revenue	10,421	12,496	(2,075)	34,915	36,321	(1,406)
Change in tax-equivalent adjustment	1,211			3,978		
Net interest revenue	$9,210			$30,937		

[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 $191.3 million for the third quarter of 2016, a $27.9 million increase over the third quarter of 2015 and a $2.5 million increase over the second quarter of 2016. Fees and commissions revenue was up $20.7 million over the third quarter of 2015 and increased $1.8 million over the prior quarter. The change in the fair value of mortgage servicing rights, net of economic hedges, increased other operating revenue by $1.2 million in the third quarter of 2016, decreased other operating revenue by $4.4 million in the third quarter of 2015 and decreased other operating revenue $1.2 million in the second quarter of 2016.

Table 2 – Other Operating Revenue
(In thousands)

	Three Months Ended Sept. 30, 2016	Three Months Ended Sept. 30, 2015	Increase (Decrease)	% Increase (Decrease)	Three Months Ended June 30,	Increase (Decrease)	% Increase (Decrease)
Brokerage and trading revenue	$38,006	$31,582	$6,424	20 %	$39,530	$(1,524)	(4)%
Transaction card revenue	33,933	32,514	1,419	4 %	34,950	(1,017)	(3)%
Fiduciary and asset management revenue	34,073	30,807	3,266	11 %	34,813	(740)	(2)%
Deposit service charges and fees	23,668	23,606	62	— %	22,618	1,050	5 %
Mortgage banking revenue	42,548	33,170	9,378	28 %	38,224	4,324	11 %
Other revenue	13,080	12,978	102	1 %	13,352	(272)	(2)%
Total fees and commissions revenue	185,308	164,657	20,651	13 %	183,487	1,821	1 %
Other gains, net	2,442	1,161	1,281	N/A	1,307	1,135	N/A
Gain on derivatives, net	2,226	1,283	943	N/A	10,766	(8,540)	N/A
Gain (loss) on fair value option securities, net	(3,355)	5,926	(9,281)	N/A	4,279	(7,634)	N/A
Change in fair value of mortgage servicing rights	2,327	(11,757)	14,084	N/A	(16,283)	18,610	N/A
Gain on available for sale securities, net	2,394	2,166	228	N/A	5,326	(2,932)	N/A
Total other operating revenue	$191,342	$163,436	$27,906	17 %	$188,882	$2,460	1 %

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 50 percent of total revenue for the third quarter of 2016, 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 that cause net interest revenue compression such as falling interest rates may also drive growth in our mortgage banking revenue. 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 includes revenues from trading, customer hedging, retail brokerage and investment banking. Brokerage and trading revenue increased $6.4 million or 20 percent over the third quarter of 2015.

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 $12.0 million for the third quarter of 2016, an increase of $337 thousand or 3 percent over the third quarter of 2015. The Company added a new group trading in U.S. government agency residential mortgage-backed securities and related to-be-announced derivatives. The addition of this group added $2.0 million of net interest revenue and $1.9 million of trading revenue during the third quarter and added $426 million to the trading securities portfolio at September 30. This increase was partially offset by lower volumes of U.S. agency residential mortgage-backed securities, brokered certificates of deposit and municipal securities sold to our institutional customers.

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 $13.8 million for the third quarter of 2016, a $4.5 million or 48 percent increase over the third quarter of 2015 primarily due to increased hedging activity by our mortgage banking and energy customers.

Revenue earned from retail brokerage transactions increased $932 thousand or 15 percent over the third quarter of 2015 to $7.0 million. Retail brokerage revenue is primarily based on 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 increase in revenue due to transaction volume growth was partially offset by a change in product mix to products that pay a lower commission rate. In addition, volume has shifted from sales of products that pay a one-time transaction fee to accounts that pay us an on-going management fee.

Investment banking revenue, which includes fees earned upon completion of underwriting and financial advisory services and loan syndication fees, totaled $5.3 million for the third quarter of 2016, an increase of $688 thousand or 15 percent over the third quarter of 2015. Investment banking revenue is primarily related to the timing and volume of completed transactions.

Brokerage and trading revenue decreased $1.5 million compared to the second quarter of 2016. Investment banking revenue decreased $1.7 million primarily due to the timing and volume of completed transactions. Trading revenue decreased $307 thousand. Growth from the addition of our new mortgage trading group was offset by lower volumes of U.S. agency mortgage-backed securities and municipal securities to our institutional customers. Customer hedging revenue increased $256 thousand primarily due to increased volumes of contracts with our mortgage banking, partially offset by lower contract volumes with our energy customers. Retail brokerage fees were up $228 thousand over the prior quarter.

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 for the third quarter of 2016 increased $1.4 million or 4 percent over the third quarter of 2015. Revenues from the processing of transactions on behalf of the members of our TransFund electronic funds transfer ("EFT") network totaled $17.8 million, a $1.6 million or 10 percent increase over the prior year. Merchant services fees totaled $11.3 million, a $274 thousand or 2 percent decrease based on decreased transaction activity. Revenue from interchange fees paid by merchants for transactions processed from debit cards issued by the Company totaled $4.9 million, an increase of $71 thousand or 1 percent over the third quarter of 2015.
Excluding the impact of a $1.2 million customer early termination fee in the second quarter of 2016, transaction card revenue increased $165 thousand primarily due to an increase in transaction volumes on our TransFund EFT network, partially offset by a decrease in merchant services fees and revenue from interchange fees compared to the prior

quarter.

Fiduciary and asset management revenue increased $3.3 million or 11 percent over the third quarter of 2015, largely due to decreased fee waivers. We earn fees as administrator to and investment adviser for the Cavanal Hill Funds, a diversified, open-ended investment company established as a business trust under the Investment Company Act of 1940. The Bank is custodian and BOK Financial Securities, Inc. is distributor for the Cavanal Hill Funds. Products of the Cavanal Hill Funds are offered to customers, employee benefit plans, trusts and the general public in the ordinary course of business. We have voluntarily waived administration fees on the Cavanal Hill money market funds in order to maintain positive yields on these funds in the current low short-term interest rate environment. Waived fees totaled $1.6 million for the third quarter of 2016 compared to $3.4 million for the third quarter of 2015 and $1.8 million for the second quarter of 2016. The decrease in fee waivers was related to increased interest rates as a result of the Federal Reserve's federal funds rate increase in the fourth quarter of 2015. The remaining increase is primarily due to growth in assets under management related to the Company's acquisition of Weaver and Tidwell Financial Advisors LTD d/b/a Weaver Wealth Management, a registered investment advisor, in the first quarter of 2016 and changes in market values.

Fiduciary and asset management revenue decreased $740 thousand compared to the second quarter of 2016 primarily due to seasonality of annual assessment of tax preparation fees in the second quarter, partially offset by growth in assets under management.

The fair value of fiduciary assets administered by the Company totaled $41.2 billion at September 30, 2016, $37.8 billion at September 30, 2015 and $39.9 billion at June 30, 2016. Fiduciary assets are assets for which the Company possesses investment discretion on behalf of another or any other similar capacity.

Deposit service charges and fees were $23.7 million for the third quarter of 2016, largely unchanged compared to the third quarter of 2015. Commercial account service charge revenue totaled $11.4 million, up $595 thousand or 6 percent over the prior year. Overdraft fees were $10.6 million for the third quarter of 2016, a decrease of $470 thousand or 4 percent compared to the third quarter of 2015. Service charges on deposit accounts with a standard monthly fee were $1.7 million, a decrease of $68 thousand or 4 percent compared to the third quarter of 2015. Deposit service charges and fees increased $1.1 million over the prior quarter primarily due to a seasonal increase in overdraft fee volumes and increased commercial account service charge revenue.

Mortgage banking revenue increased $9.4 million or 28% over the third quarter of 2015. Mortgage production revenue increased $7.3 million over the prior year. Better gains on sale margins and an increased volume of loans sold was partially offset by a lower volume of mortgage loan commitments. Mortgage servicing revenue was up $2.1 million or 15 percent over the third quarter of 2015. The outstanding principal balance of mortgage loans serviced for others totaled $21.9 billion, an increase of $2.9 billion or 15 percent.
Outstanding mortgage loan commitments at September 30, 2016 decreased $112 million or 15% compared to September 30, 2015. The Company made a strategic decision to exit the correspondent lending channel during the third quarter of 2016 based on careful consideration of continued pressure on margin due to the competitive landscape and regulatory costs. This strategic decision decreased outstanding commitments by $289 million compared to the prior year. Mortgage loan commitments continued to grow in our retail and HomeDirect online channels. The correspondent lending channel represented $4.6 million of the total mortgage loan production revenue of $26.0 million for the third quarter of 2016 and $4.0 million of the total mortgage loan production revenue of $18.7 million for the third quarter of 2015.
Mortgage banking revenue increased $4.3 million over the second quarter of 2016. Mortgage production revenue increased $3.6 million due to growth in the volume of mortgage loans sold and increased gains on sale, partially offset by a decrease in mortgage loan commitments during the quarter. Average primary mortgage interest rates were 14 basis points lower than in the second quarter of 2016. Total mortgage loans originated during the third quarter of 2016 increased $46 million over the previous quarter. Outstanding mortgage loan commitments at September 30, 2016 decreased by $335 million from June 30, 2016. The decrease in commitments related to correspondent lending was $414 million compared to June 30. Mortgage loan commitments from both the retail and HomeDirect channels grew over the prior quarter. The correspondent lending channel represented $3.0 million of total mortgage production revenue of $22.4 million for the second quarter of 2016. Revenue from mortgage loan servicing grew by $760 thousand due to an increase in the volume of loans serviced. The outstanding balance of mortgage loans serviced for others increased $673 million over June 30, 2016.

Table 3 – Mortgage Banking Revenue
(In thousands)

	Three Months Ended Sept. 30, 2016	2015	Increase (Decrease)	% Increase (Decrease)	Three Months Ended June 30,	Increase (Decrease)	% Increase (Decrease)
Net realized gains on mortgage loans sold	$27,142	$18,968	$8,174	43 %	$19,205	$7,937	41 %
Change in net unrealized gains on mortgage loans held for sale	(1,152)	(251)	N/A	N/A	3,221	N/A	N/A
Total mortgage production revenue	25,990	18,717	7,273	39 %	22,426	3,564	16 %
Servicing revenue	16,558	14,453	2,105	15 %	15,798	760	5 %
Total mortgage revenue	$42,548	$33,170	$9,378	28 %	$38,224	$4,324	11 %
Mortgage loans funded for sale	$1,864,583	$1,614,225	$250,358	16 %	$1,818,844	$45,739	3 %
Mortgage loans sold	1,873,709	1,778,099	95,610	5 %	1,742,582	131,127	8 %
Period end outstanding mortgage commitments, net	630,804	742,742	(111,938)	(15)%	965,631	(334,827)	(35)%
Outstanding principal balance of mortgage loans serviced for others	21,851,536	18,928,726	2,922,810	15 %	21,178,387	673,149	3 %
Primary residential mortgage interest rate – period end	3.42 %	3.86 %	(44) bps		3.48 %	(6) bps	
Primary residential mortgage interest rate – average	3.45 %	3.95 %	(50) bps		3.59 %	(14) bps	
Secondary residential mortgage interest rate – period end	2.34 %	2.87 %	(53) bps		2.31 %	3 bps	
Secondary residential mortgage interest rate – average	2.36 %	2.97 %	(61) bps		2.52 %	(16) bps	

Certain percentage increases (decreases) are not meaningful for comparison purposes based on the nature of the item.

Primary rates disclosed in Table 3 above represent rates generally available to borrowers on 30 year conforming mortgage loans. Secondary rates generally represent yields on 30 year residential mortgage-backed securities guaranteed by U.S. government agencies.

Net gains on securities, derivatives and other assets

In the third quarter of 2016, we recognized a $2.4 million net gain from sales of $232 million of available for sale securities. Securities were sold either because they had reached their expected maximum potential or to move into securities that are expected to perform better in the current rate environment. In the third quarter of 2015, we recognized a $2.2 million net gain from sales of $451 million of available for sale securities and in the second quarter of 2016, we recognized a $5.3 million net gain on sales of $326 million of available for sale securities.

We also maintain a portfolio of residential mortgage-backed securities issued by U.S. government agencies, U.S. Treasury securities and interest rate derivative contracts held as an economic hedge of the changes in the fair value of our mortgage servicing rights. The fair value of our mortgage servicing rights fluctuates due to changes in prepayment speeds and other assumptions as more fully described in Note 6 to the Consolidated Financial Statements. As benchmark mortgage rates increase, prepayment speeds slow and the value of our mortgage servicing rights increases. As benchmark mortgage rates fall, prepayment speeds increase and the value of our mortgage servicing rights decreases.

Changes in the fair value of mortgage servicing rights are highly dependent on changes in primary mortgage rates, rates offered to borrowers, and assumptions about servicing revenues, servicing costs and discount rates. Changes in the fair value of residential mortgage-backed securities are highly dependent on changes in secondary mortgage rates, or rates required by investors, and interest rate derivative contracts are highly dependent on changes in other market interest rates. While primary and secondary mortgage rates generally move in the same direction, the spread between them may widen and narrow due to market conditions and government intervention. Changes in the forward-looking spread between the primary and secondary rates can cause significant earnings volatility. Additionally, the fair value of mortgage servicing rights is dependent on intermediate-term interest rates that affect the value of custodial funds. Changes in the spread between short-term and long-term interest rates can also cause significant earnings volatility.

Table 4 following shows the relationship between changes in the fair value of mortgage servicing rights and the fair value of fair value option residential mortgage-backed securities and interest rate derivative contracts held as an economic hedge. The fair value of mortgage servicing rights increased during the third quarter of 2016 primarily due to changes in short term interest rates. The fair value of securities and interest rate derivative contracts held as an economic hedge decreased primarily due to an increase in interest rate swap rates, partially offset by a decrease in average secondary mortgage rates. The fair value of mortgage servicing rights, net of economic hedges, decreased in the second quarter of 2016, primarily due to a decrease in secondary mortgage and interest rate swap rates. Hedge coverage was increased during the second quarter to improve its effectiveness.

Table 4 - Gain (Loss) on Mortgage Servicing Rights
(In thousands)

	Three Months Ended		
	Sept. 30, 2016	June 30, 2016	Sept. 30, 2015
Gain on mortgage hedge derivative contracts, net	$2,268	$10,766	$1,460
Gain (loss) on fair value option securities, net	(3,355)	4,279	5,926
Gain (loss) on economic hedge of mortgage servicing rights, net	(1,087)	15,045	7,386
Gain (loss) on change in fair value of mortgage servicing rights	2,327	(16,283)	(11,757)
Gain (loss) on changes in fair value of mortgage servicing rights, net of economic hedges	$1,240	$(1,238)	$(4,371)
Net interest revenue on fair value option securities	$861	$1,348	$2,140

Other Operating Expense

Other operating expense for the third quarter of 2016 totaled $262.1 million, a $37.5 million or 17 percent increase over the third quarter of 2015. Personnel expenses increased $14.1 million or 11 percent. Non-personnel expenses increased $23.4 million or 24 percent over the prior year.

Operating expenses increased $7.4 million over the previous quarter. Personnel expense increased $695 thousand. Non-personnel expense increased $6.7 million.

Table 5 -- Other Operating Expense
(In thousands)

	Three Months Ended Sept. 30, 2016	2015	Increase (Decrease)	% Increase (Decrease)	Three Months Ended June 30,	Increase (Decrease)	% Increase (Decrease)
Regular compensation	$83,956	$79,208	$4,748	6 %	$82,441	$1,515	2 %
Incentive compensation:							
Cash-based	36,133	30,462	5,671	19 %	34,894	1,239	4 %
Share-based	1,839	2,885	(1,046)	(36)%	3,701	(1,862)	(50)%
Deferred compensation	1,059	(539)	1,598	N/A	211	848	N/A
Total incentive compensation	39,031	32,808	6,223	19 %	38,806	225	1 %
Employee benefits	20,198	17,046	3,152	18 %	21,243	(1,045)	(5)%
Total personnel expense	143,185	129,062	14,123	11 %	142,490	695	— %
Business promotion	6,839	5,922	917	15 %	6,703	136	2 %
Charitable contributions to BOKF Foundation	—	796	(796)	N/A	—	—	N/A
Professional fees and services	14,038	10,147	3,891	38 %	14,158	(120)	(1)%
Net occupancy and equipment	20,111	18,689	1,422	8 %	19,677	434	2 %
Insurance	9,390	4,864	4,526	93 %	7,129	2,261	32 %
Data processing and communications	33,331	30,708	2,623	9 %	32,802	529	2 %
Printing, postage and supplies	3,790	3,376	414	12 %	3,889	(99)	(3)%
Net losses (gains) and operating expenses of repossessed assets	(926)	267	(1,193)	(447)%	1,588	(2,514)	(158)%
Amortization of intangible assets	1,521	1,089	432	40 %	2,624	(1,103)	(42)%
Mortgage banking costs	16,022	9,107	6,915	76 %	15,809	213	1 %
Other expense	14,819	10,601	4,218	40 %	7,856	6,963	89 %
Total other operating expense	$262,120	$224,628	$37,492	17 %	$254,725	$7,395	3 %
Average number of employees (full-time equivalent)	4,928	4,846	82	2 %	4,893	35	1 %

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 $4.7 million or 6 percent over the third quarter of 2015. The average number of employees increased 2 percent over the prior year. Recent additions have primarily been in mortgage, wealth management and technology. In addition, standard annual merit increases in regular compensation were effective for the majority of our staff on March 1.

Incentive compensation increased $6.2 million or 19 percent over the third quarter of 2015. 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. Total cash-based incentive compensation increased $5.7 million or 19 percent over the third quarter of 2015.

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. Compensation costs related to certain shares is variable based on changes in the the fair value of BOK Financial common shares. Share-based compensation expense decreased $1.0 million or 36% compared to the prior year, primarily due to the decrease in the vesting probability of certain performance-based share awards.

Employee benefits expense increased $3.2 million or 18 percent over the third quarter of 2015 primarily due to a $2.4 million increase in employee medical costs. Retirement plan costs and payroll taxes also increased over the prior year. Personnel costs increased by $695 thousand over the second quarter of 2016. Regular compensation expense increased $1.5 million. Cash-based incentive compensation was up $1.2 million primarily due to revenue growth. Deferred compensation expense was up $848 thousand over the prior quarter. This additional expense is largely offset by the increase in the fair value of deferred compensation plan assets included in Other revenue. Share-based compensation expense was $1.9 million lower primarily due to the decrease in the vesting probability of certain performance-based share awards. Employee benefits expense was lower compared to the prior quarter primarily due to a $1.5 million seasonal decrease in payroll tax expense, partially offset by a $365 thousand increase in employee medical costs.

Non-personnel operating expenses

Non-personnel operating expenses increased $23.4 million or 24 percent over the third quarter of 2015. Mortgage banking costs increased $6.9 million. Expense related to the effect of actual loan prepayments on the fair value of mortgage servicing rights totaled $11.4 million, a $4.6 million increase over the third quarter of 2015. Actual prepayments increased due to lower mortgage interest rates. Mortgage banking costs for the third quarter of 2015 included a $1.2 million benefit from the reversal of estimated claims based on a favorable resolution of an audit of servicing of certain residential mortgage loans guaranteed by U.S. government agencies.

Deposit insurance expense increased $4.5 million, primarily due to an increase in criticized and classified assets, an input to the deposit insurance assessment, and implementation of a new surcharge for banks over $10 billion in assets. Criticized and classified assets increased compared to the prior year as a result of falling energy prices that began in the fourth quarter of 2015. During the third quarter of 2016, the deposit insurance fund reached a target of 1.15% of insured deposits which triggered a new surcharge for banks with more than $10 billion in assets to bring the deposit insurance fund to 1.35% of insured deposits. This impact was partially offset by a reduction in the base rate.

Other expense increased $4.2 million over the prior year due primarily to a $5.0 million legal settlement accrual concerning the manner in which the Company posted charges to certain consumer and small business deposit accounts. Professional fees and services expense increased $3.9 million primarily due to costs incurred in preparation for the mobank acquisition and increased legal fees. Data processing and communications expense increased $2.6 million due to increased transaction activity. The Company had a net gain on sale of repossessed assets of $1.6 million in the third quarter of 2016 compared to a net loss of $517 thousand in the third quarter of 2015. Operating expenses related to repossessed assets also declined compared to the prior year.

Non-personnel expense increased $6.7 million over the second quarter of 2016 primarily due to the $5.0 million accrual related to a legal settlement during the third quarter. Deposit insurance expense was up $2.3 million primarily due to the new surcharge for banks with more than $10 billion in assets. Expense related to prepayments of residential mortgage loans serviced for others increased $1.6 million over the prior quarter, partially offset by a $1.4 million decrease in mortgage-related accruals. The Company had a net gain on sale of repossessed assets of $1.6 million in the third quarter compared to a net loss of $127 thousand in the second quarter. Operating expenses on repossessed assets also decreased compared to the prior quarter. The $1.1 million decrease in intangible asset amortization expense was due to an adjustment to a consolidated merchant-banking investment during the second quarter.

Income Taxes

The Company's income tax expense from continuing operations was $32.0 million or 29.8% of book taxable income for the third quarter of 2016 compared to $34.1 million or 31.0% of book taxable income for the third quarter of 2015 and $30.5 million or 31.5% of book taxable income for the second quarter of 2016.

The statute of limitations expired on uncertain income tax positions and the Company adjusted its current income tax liability amounts on filed tax returns for 2015 during the third quarter of 2016. These adjustments reduced income tax expense by $2.6 million in the third quarter of 2016 and $2.0 million in the third quarter of 2015. Excluding these adjustments, income tax expense would have been 32.3% of book taxable income for the third quarter of 2016 and 32.8% of book taxable income for the third quarter of 2015.
The Company's effective tax rate is affected by recurring items such as amortization related to its investments in affordable housing investments net of affordable housing tax credits and other tax benefits, bank-owned life insurance and tax-exempt income. 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 $14 million at both September 30, 2016 and September 30, 2015 and $13 million at June 30, 2016.
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 duration. Market rates are generally based on the applicable LIBOR or interest rate swap rates, adjusted for prepayment risk. This method of transfer-pricing funds that support 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 duration and re-pricing 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 re-pricing 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 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 6, net income attributable to our lines of business increased $12.4 million or 20 percent over the third quarter of 2015. Net interest revenue grew by $19.3 million over the prior year. Other operating revenue was up $18.6 million. This revenue growth was partially offset by a $22.5 million increase in operating expense and a $4.4 million increase in net charge-offs primarily due to energy loans.

Table 6 -- Net Income by Line of Business
(In thousands)

	Three Months Ended		Nine Months Ended	
	September 30,		September 30,	
	2016	2015	2016	2015
Commercial Banking	$55,994	$47,657	$145,885	$144,929
Consumer Banking	8,762	6,535	13,104	22,693
Wealth Management	9,108	7,250	26,866	24,672
Subtotal	73,864	61,442	185,855	192,294
Funds Management and other	413	13,449	(3,213)	36,670
Total	$74,277	$74,891	$182,642	$228,964

Commercial Banking

Commercial Banking contributed $56.0 million to consolidated net income in the third quarter of 2016, an increase of $8.3 million or 18% over the third quarter of 2015. Growth in net interest revenue and fees and commissions revenue was partially offset by increased loan charge-offs and higher operating expenses. Commercial Banking net loans charged off were $5.6 million in the third quarter of 2016 compared to a net recovery of $997 thousand in the third quarter of 2015. The increase was primarily related to energy portfolio loans.

Table 7 -- Commercial Banking
(Dollars in thousands)

	Three Months Ended September 30,		Increase (Decrease)	Nine Months Ended September 30,		Increase (Decrease)
	2016	2015		2016	2015	
Net interest revenue from external sources	$123,598	$109,503	$14,095	$358,714	$319,298	$39,416
Net interest expense from internal sources	(15,052)	(13,450)	(1,602)	(44,259)	(38,728)	(5,531)
Total net interest revenue	108,546	96,053	12,493	314,455	280,570	33,885
Net loans charged off (recovered)	5,601	997	4,604	34,024	(7,952)	41,976
Net interest revenue after net loans charged off (recovered)	102,945	95,056	7,889	280,431	288,522	(8,091)
Fees and commissions revenue	47,710	45,133	2,577	144,215	132,609	11,606
Other gains, net	1,932	143	1,789	2,033	387	1,646
Other operating revenue	49,642	45,276	4,366	146,248	132,996	13,252
Personnel expense	28,365	27,354	1,011	82,513	80,736	1,777
Non-personnel expense	25,010	24,606	404	79,526	71,172	8,354
Other operating expense	53,375	51,960	1,415	162,039	151,908	10,131
Net direct contribution	99,212	88,372	10,840	264,640	269,610	(4,970)
Gain on repossessed assets, net	1,486	350	1,136	806	336	470
Corporate expense allocations	9,054	10,723	(1,669)	26,681	32,747	(6,066)
Income before taxes	91,644	77,999	13,645	238,765	237,199	1,566
Federal and state income tax	35,650	30,342	5,308	92,880	92,270	610
Net income	$55,994	$47,657	$8,337	$145,885	$144,929	$956
Average assets	$16,934,587	$16,156,446	$778,141	$16,958,999	$16,229,307	$729,692
Average loans	13,737,081	12,531,113	1,205,968	13,542,719	12,230,278	1,312,441
Average deposits	8,317,341	8,627,281	(309,940)	8,392,558	8,849,091	(456,533)
Average invested capital	1,170,465	1,062,053	108,412	1,161,996	1,028,013	133,983

Net interest revenue increased $12.5 million or 13% over the prior year. Growth in net interest revenue was primarily due to a $1.2 billion or 10% increase in average loan balances and increased yields on commercial loans due to rising short-term interest rates. The impact of decreased average deposit balances was offset by increased yields on deposits sold to the funds management unit related to the increase in short-term interest rates from the Federal Reserve increase in the federal funds rate in the fourth quarter of 2015.

Fees and commissions revenue grew by $2.6 million or 6% over the third quarter of 2015. Brokerage and trading revenue increased $1.5 million primarily due to growth in commercial loan syndication fees and increased hedging activity by our energy customers. Transaction card revenues from our TransFund electronic funds transfer network increased $1.3 million primarily due to increased transaction volumes. Commercial deposit service charge revenue was also up over the prior year, offset by a decrease in other revenue.

Operating expenses increased $1.4 million or 3% over the the third quarter of 2015. Personnel expense increased $1.0 million or 4% primarily due to standard annual merit increases and increased incentive compensation expense. Non-personnel expense increased $404 thousand or 2% primarily due to a $403 thousand increase in intangible asset amortization. Increased business promotion expense related to timing of expenditures was offset by lower professional fees and services expense. Corporate expense allocations decreased $1.7 million compared to the prior year.

The average outstanding balance of loans attributed to Commercial Banking grew by $1.2 billion or 10% over the third quarter of 2015 to $13.7 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 $8.3 billion for the third quarter of 2016, a decrease of $310 million or 4% compared to the third quarter of 2015. 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. During the third quarter of 2016. the Company made a strategic decision to exit the correspondent lending channel based on careful consideration of continued pressure on margin due to the competitive landscape and increasing regulatory costs.

Consumer Banking contributed $8.8 million to consolidated net income for the third quarter of 2016, up $2.2 million over the third quarter of 2015. Growth in mortgage banking revenue and net interest revenue was offset by the effect of increased actual prepayments of mortgage loans on mortgage servicing rights and increased personnel costs. Corporate expense allocations were $2.0 million lower than in the prior year.

Changes in the fair value of our mortgage servicing rights, net of economic hedge, resulted in a $758 thousand increase in Consumer Banking net income in the third quarter of 2016 compared to a $2.7 million decrease in Consumer Banking net income in the third quarter of 2015.

Table 8 -- Consumer Banking
(Dollars in thousands)

	Three Months Ended September 30, 2016	2015	Increase (Decrease)	Nine Months Ended September 30, 2016	2015	Increase (Decrease)
Net interest revenue from external sources	$22,098	$21,551	$547	$65,897	$63,993	$1,904
Net interest revenue from internal sources	9,263	7,216	2,047	27,492	20,874	6,618
Total net interest revenue	31,361	28,767	2,594	93,389	84,867	8,522
Net loans charged off	1,157	1,431	(274)	4,177	4,467	(290)
Net interest revenue after net loans charged off	30,204	27,336	2,868	89,212	80,400	8,812
Fees and commissions revenue	64,805	57,504	7,301	181,816	178,899	2,917
Other gains (losses), net	(170)	(155)	(15)	(42)	(667)	625
Other operating revenue	64,635	57,349	7,286	181,774	178,232	3,542
Personnel expense	30,576	26,128	4,448	87,206	78,251	8,955
Non-personnel expense	34,419	24,899	9,520	101,982	77,593	24,389
Total other operating expense	64,995	51,027	13,968	189,188	155,844	33,344
Net direct contribution	29,844	33,658	(3,814)	81,798	102,788	(20,990)
Gain (loss) on financial instruments, net	(1,087)	7,386	(8,473)	30,539	1,809	28,730
Change in fair value of mortgage servicing rights	2,327	(11,758)	14,085	(41,944)	(12,269)	(29,675)
Gain on repossessed assets, net	161	331	(170)	566	888	(322)
Corporate expense allocations	16,905	18,921	(2,016)	49,513	56,075	(6,562)
Income before taxes	14,340	10,696	3,644	21,446	37,141	(15,695)
Federal and state income tax	5,578	4,161	1,417	8,342	14,448	(6,106)
Net income	$8,762	$6,535	$2,227	$13,104	$22,693	$(9,589)
Average assets	$8,827,816	$8,843,926	$(16,110)	$8,763,564	$8,871,423	$(107,859)
Average loans	1,893,431	1,884,635	8,796	1,888,693	1,908,632	(19,939)
Average deposits	6,660,514	6,675,990	(15,476)	6,623,724	6,674,052	(50,328)
Average invested capital	275,358	264,540	10,818	267,123	268,427	(1,304)

Net interest revenue from Consumer Banking activities grew by $2.6 million or 9% over the the third quarter of 2015 primarily due to increased rates on deposit balances sold to the Funds Management unit. Both average deposits and average loan balnaces were largely unchanged compared to the the prior year.

Fees and commissions revenue increased $7.3 million or 13% over the third quarter of 2015, primarily due to a $9.4 million increase in mortgage banking revenue. Mortgage loans funded for sale increased $250 million or 16% over the third quarter of 2015. Revenue from interchange fees paid by merchants for transactions processed from debit cards issued by the Company increased $166 thousand or 3%. Deposit service charges and fees decreased $502 thousand or 4% compared to the prior year. Other revenue decreased $1.7 million compared to the prior year due to change in earnings related to low income housing tax investments attributed to the Consumer Banking segment.

Operating expenses increased $14.0 million or 27% over the third quarter of 2015. Personnel expenses increased $4.4 million or 17%. Regular compensation expense was up $2.0 million primarily due to annual merit increases and growth in mortgage banking headcount. Incentive compensation expense was up $2.0 million over the prior year. Non-personnel expense increased $9.5 million or 38% over the prior year. Mortgage banking expense was up $7.5 million over the prior year. The effect of actual residential mortgage loan prepayments on the fair value of mortgage servicing rights increased expenses by $4.6 million. The third quarter of 2015 also included a $1.2 million benefit from the reversal of estimated claims based on a favorable resolution of an audit of servicing of certain residential mortgage loans guaranteed by U.S. government agencies. Business promotion, professional fees and services and printing, postage and supplies expense all increased over the prior year.

Corporate expense allocations decreased $2.0 million compared to the third quarter of 2015.

Average consumer deposits were largely unchanged compared to the third quarter of 2015. Average time deposit balances decreased $257 million or 19%, offset by a $163 million or 10% increase in demand deposit balances, a $48 million or 1% increase in interest-bearing transaction accounts and a $30 million or 8% increase in savings account balances.

Wealth Management

Wealth Management contributed $9.1 million to consolidated net income in the third quarter of 2016, up $1.9 million or 26% over the third quarter of 2015. Net interest revenue grew over the prior year. Growth in fiduciary and asset management revenue and brokerage and trading revenue was offset by increased operating expense.

Table 9 -- Wealth Management
(Dollars in thousands)

	Three Months Ended September 30, 2016	2015	Increase (Decrease)	Nine Months Ended September 30, 2016	2015	Increase (Decrease)
Net interest revenue from external sources	$9,274	$6,674	$2,600	$21,622	$18,271	$3,351
Net interest revenue from internal sources	7,401	5,834	1,567	22,258	17,400	4,858
Total net interest revenue	16,675	12,508	4,167	43,880	35,671	8,209
Net loans charged off (recovered)	(89)	(190)	101	(479)	(937)	458
Net interest revenue after net loans charged off (recovered)	16,764	12,698	4,066	44,359	36,608	7,751
Fees and commissions revenue	73,331	66,313	7,018	217,519	203,450	14,069
Other gains, net	192	228	(36)	523	650	(127)
Other operating revenue	73,523	66,541	6,982	218,042	204,100	13,942
Personnel expense	48,969	45,316	3,653	142,235	133,923	8,312
Non-personnel expense	15,457	12,040	3,417	44,289	36,190	8,099
Other operating expense	64,426	57,356	7,070	186,524	170,113	16,411
Net direct contribution	25,861	21,883	3,978	75,877	70,595	5,282
Loss on financial instruments, net	(42)	(176)	134	(42)	(204)	162
Corporate expense allocations	10,912	9,841	1,071	31,864	30,011	1,853
Income before taxes	14,907	11,866	3,041	43,971	40,380	3,591
Federal and state income tax	5,799	4,616	1,183	17,105	15,708	1,397
Net income	$9,108	$7,250	$1,858	$26,866	$24,672	$2,194
Average assets	$6,413,735	$5,433,238	$980,497	$5,916,545	$5,401,433	$515,112
Average loans	1,139,396	1,085,496	53,900	1,109,410	1,062,362	47,048
Average deposits	4,913,409	4,490,082	423,327	4,710,893	4,570,420	140,473
Average invested capital	244,291	226,477	17,814	238,917	225,222	13,695

	September 30, 2016	2015	Increase (Decrease)
Fiduciary assets in custody for which BOKF has sole or joint discretionary authority	$14,256,866	$14,027,771	$229,095
Fiduciary assets not in custody for which BOKF has sole or joint discretionary authority	3,800,445	3,325,785	474,660
Non-managed trust assets in custody	23,164,851	20,427,113	2,737,738
Total fiduciary assets	41,222,162	37,780,669	3,441,493
Assets held in safekeeping	28,101,063	23,574,320	4,526,743
Brokerage accounts under BOKF administration	5,950,506	5,646,493	304,013

Assets under management or in custody	$75,273,731	$67,001,482	$8,272,249

Net interest revenue for the third quarter of 2016 increased $4.2 million or 33% over the third quarter of 2015, primarily due to an increase in the size of the U.S. agency mortgage-backed portfolio related to a new trading group that began operations during the third quarter of 2016 and increased rates on deposit balances sold to the Funds Management unit. Average deposit balances grew by $423 million or 9% over the third quarter of 2015. Non-interest bearing demand deposits grew by $173 million or 17% and interest-bearing transaction account balances increased $307 million or 11%, partially offset by a $60 million or 8% decrease in time deposit balances. Average loan balances increased $54 million or 5% over the prior year.

Fees and commissions revenue was up $7.0 million or 11% over the third quarter of 2015. Fiduciary and asset management revenue increased $3.3 million or 11% over the prior year primarily due to decreased fee waivers, the Company's acquisition of Weaver and Tidwell Financial Advisors LTD d/b/a Weaver Wealth Management, a registered investment advisor, in the first quarter of 2016 and changes in market values. Brokerage and trading revenue grew by $3.2 million or 10%. The addition of a new group trading in U.S. government agency residential mortgage-backed securities and related derivatives added $1.9 million of trading revenue during the third quarter and $426 million to the trading securities portfolio at September 30. Growth in retail brokerage revenue was offset by lower investment banking revenue compared to the third quarter of 2015.

Other operating revenue includes fees earned from state and municipal bond and corporate debt underwriting and financial advisory services, primarily in the Oklahoma and Texas markets. In the third quarter of 2016, the Wealth Management division participated in 107 state and municipal bond underwritings that totaled $5.2 billion. As a participant, the Wealth Management division was responsible for facilitating the sale of approximately $708 million of these underwritings. The Wealth Management division also participated in 11 corporate debt underwritings that totaled $4 billion. Our interest in these underwritings was $93 million. In the third quarter of 2015, the Wealth Management division participated in 132 state and municipal bond underwritings that totaled approximately $3.2 billion. Our interest in these underwritings totaled approximately $997 million. The Wealth Management division also participated in three corporate debt underwritings that totaled $1.7 billion. Our interest in these underwritings was $27 million.

Operating expense increased $7.1 million or 12% over the third quarter of 2015. Personnel expenses increased $3.7 million, primarily due to incentive compensation expense and standard merit increases to regular compensation. Non-personnel expense increased $3.4 million, primarily due to a $1.8 million increase in professional fees and services expense.

Corporate expense allocations increased $1.1 million or 11% 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 September 30, 2016, December 31, 2015 and September 30, 2015.

At September 30, 2016, the carrying value of investment (held-to-maturity) securities was $546 million and the fair value was $580 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 $104 million of the $200 million portfolio of Texas school construction bonds are 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 $8.7 billion at September 30, 2016, an increase of $67 million over June 30, 2016. Available for sale securities consist primarily of U.S. government agency residential mortgage-backed securities and U.S. government agency commercial mortgage-backed securities. Commercial mortgage-backed securities have prepayment penalties similar to commercial loans. At September 30, 2016, residential mortgage-backed securities represented 65 percent of total available for sale securities.

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 September 30, 2016 is 2.8 years. Management estimates the duration extends to 3.3 years assuming an immediate 200 basis point upward shock. The estimated duration contracts to 2.5 years assuming a 50 basis point decline in the current low rate environment.

Residential mortgage-backed securities also 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. At September 30, 2016, approximately $5.6 billion of the amortized cost of the Company’s residential mortgage-backed securities were issued by U.S. government agencies. The fair value of these residential mortgage-backed securities totaled $5.7 billion at September 30, 2016.

We also hold amortized cost of $108 million in residential mortgage-backed securities privately issued by publicly-owned financial institutions, a decrease of $6.9 million from June 30, 2016. The decrease was due to cash payments received during the quarter. The fair value of our portfolio of privately issued residential mortgage-backed securities totaled $122 million at September 30, 2016.

The amortized cost of our portfolio of privately issued residential mortgage-backed securities included $61 million of Jumbo-A residential mortgage loans and $47 million of Alt-A residential mortgage loans. Jumbo-A residential mortgage loans generally meet government underwriting standards, but have loan balances that exceed agency maximums. Alt-A mortgage loans generally do not have sufficient documentation to meet government agency underwriting standards. Approximately 90 percent of our Alt-A mortgage-backed securities represent pools of fixed rate residential mortgage loans. None of the adjustable rate mortgages are payment option adjustable rate mortgages (“ARMs”). Approximately 29 percent of our Jumbo-A residential mortgage-backed securities represent pools of fixed rate residential mortgage loans and none of the adjustable rate mortgages are payment option ARMs.

The aggregate gross amount of unrealized losses on available for sale securities totaled $6.2 million at September 30, 2016, compared to $3.0 million at June 30, 2016. On a quarterly basis, we perform separate evaluations on debt and equity 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 third quarter of 2016.

Certain U.S. Treasury securities and residential mortgage-backed securities issued by U.S. government agencies included in fair value option securities on the Consolidated Balance Sheets are held as an economic hedge of changes in the fair value of our mortgage servicing rights. We have elected to carry these securities at fair value with changes in fair value recognized in current period income. These securities are held with the intent that gains or losses will offset changes in the fair value of mortgage servicing rights and related derivative contracts.

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. Federal Reserve Bank stock totaled $36 million and holdings of FHLB stock totaled $297 million at September 30, 2016. Holdings of FHLB stock increased $14 million over June 30, 2016. We are required to hold stock in the FHLB in proportion to our borrowings with the FHLB.

Bank-Owned Life Insurance

We have approximately $310 million of bank-owned life insurance at September 30, 2016. This investment is expected to provide a long-term source of earnings to support existing employee benefit programs. Approximately $283 million is held in separate accounts. Our separate account holdings are invested in diversified portfolios of investment-grade fixed income securities and cash equivalents, including U.S. Treasury and Agency securities, residential mortgage-backed securities, corporate debt, asset-backed and commercial mortgage-backed securities. The portfolios are managed by unaffiliated professional managers within parameters established in the portfolio's investment guidelines. The cash surrender value of certain life insurance policies is further supported by a stable value wrap, which protects against changes in the fair value of the investments. At September 30, 2016, the fair value of investments held in separate accounts was approximately $297 million. As the underlying fair value of the investments held in a separate account at September 30, 2016 exceeded the net book value of the investments, no cash surrender value was supported by the stable value wrap. The stable value wrap is provided by a domestic financial institution. The remaining cash surrender value of $28 million primarily represents the cash surrender value of policies held in general accounts and other amounts due from various insurance companies.

Loans

The aggregate loan portfolio before allowance for loan losses totaled $16 billion at September 30, 2016, an increase of $58 million over June 30, 2016. The outstanding balance of commercial loans decreased by $236 million compared to June 30, 2016. Commercial real estate loan balances were up $212 million. Residential mortgage loans decreased $8.1 million compared to June 30, 2016 and personal loans increased $91 million over June 30, 2016.

Table 10 -- Loans
(In thousands)

	Sept. 30, 2016	June 30, 2016	March 31, 2016	Dec. 31, 2015	Sept. 30, 2015
Commercial:					
Energy	$2,520,804	$2,818,656	$3,029,420	$3,097,328	$2,838,167
Services	2,936,599	2,830,864	2,728,891	2,784,276	2,706,624
Healthcare	2,085,046	2,051,146	1,995,425	1,883,380	1,741,680
Wholesale/retail	1,602,030	1,532,957	1,451,846	1,422,064	1,461,936
Manufacturing	499,486	595,403	600,645	556,729	555,677
Other commercial and industrial	476,198	527,411	482,198	508,754	493,338
Total commercial	10,120,163	10,356,437	10,288,425	10,252,531	9,797,422
Commercial real estate:					
Retail	801,377	795,419	810,522	796,499	769,449
Multifamily	873,773	787,200	733,689	751,085	758,658
Office	752,705	769,112	695,552	637,707	626,151
Industrial	838,021	645,586	564,467	563,169	563,871
Residential construction and land development	159,946	157,576	171,949	160,426	153,510
Other commercial real estate	367,776	427,073	394,328	350,147	363,428
Total commercial real estate	3,793,598	3,581,966	3,370,507	3,259,033	3,235,067
Residential mortgage:					
Permanent mortgage	969,558	969,007	948,405	945,336	937,664
Permanent mortgages guaranteed by U.S. government agencies	190,309	192,732	197,350	196,937	192,712
Home equity	712,926	719,184	723,554	734,620	738,619

Total residential mortgage	1,872,793	1,880,923	1,869,309	1,876,893	1,868,995
Personal	678,232	587,423	494,325	552,697	465,957
Total	$16,464,786	$16,406,749	$16,022,566	$15,941,154	$15,367,441

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 on-going 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 on-going 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 $10.1 billion or 61 percent of the loan portfolio at September 30, 2016, a decrease of $236 million over June 30, 2016. Energy loan balances decreased $298 million, manufacturing sector loans decreased $96 million and industrial loans decreased $51 million. Service sector loans grew by $106 million, wholesale/retail sector loans increased by $69 million and healthcare sector loans increased by $34 million.

Table 11 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. 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 23 percent concentrated in the Oklahoma market. At September 30, 2016, the Other category is primarily composed of California - $295 million or 3 percent of the commercial loan portfolio, Louisiana - $175 million or 2 percent of the commercial loan portfolio, Florida - $117 million or 1% of the commercial loan portfolio, Tennessee - $106 million or 1% of the commercial loan portfolio and Ohio - $102 million or 1% of the commercial loan portfolio. All other states individually represent one percent or less of total commercial loans.

Table 11 -- Commercial Loans by Collateral Location
(In thousands)

	Oklahoma	Texas	New Mexico	Arkansas	Colorado	Arizona	Kansas/Missouri	Other	Total
Energy	$535,942	$1,203,558	$16,511	$5,273	$279,101	$10,150	$91,841	$378,428	$2,520,804
Services	756,403	913,037	225,602	4,343	265,245	196,023	177,379	398,567	2,936,599
Healthcare	285,073	383,657	129,278	97,501	130,387	121,137	217,040	720,973	2,085,046
Wholesale/retail	487,050	566,871	40,167	47,045	65,280	66,227	40,639	288,751	1,602,030
Manufacturing	131,223	150,064	495	5,381	48,805	62,175	45,310	56,033	499,486
Other commercial and industrial	88,713	132,301	3,974	71,882	13,627	25,684	62,832	77,185	476,198
Total commercial loans	$2,284,404	$3,349,488	$416,027	$231,425	$802,445	$481,396	$635,041	$1,919,937	$10,120,163

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 $2.5 billion or 15 percent of total loans at September 30, 2016. Unfunded energy loan commitments increased by $326 million to $2.3 billion at September 30, 2016. Approximately $2.0 billion of energy loans were to oil and gas producers, down $235 million compared to June 30, 2016. The majority of this portfolio is first lien, senior secured, reserve-based lending, which we believe is the lowest risk form of energy lending. The Company has largely avoided higher-risk energy lending areas including second-lien financing, mezzanine debt and subordinated debt. In addition, the Company has no direct exposure to energy company equity or to borrowers with deep-water offshore exposure. Approximately 57 percent of the committed production loans are secured by properties primarily producing oil and 43 percent of the committed production loans are secured by properties primarily producing natural gas. Loans to midstream oil and gas companies totaled $253 million at September 30, 2016, an increase of $6.8 million over June 30, 2016. Loans to borrowers that provide services to the energy industry decreased $64 million from the prior quarter to $198 million at September 30, 2016. Loans to other energy borrowers, including those engaged in wholesale or retail energy sales, totaled $67 million, a $6.0 million decrease compared to the prior quarter.

The services sector of the loan portfolio totaled $2.9 billion or 18 percent of total loans and consists of a large number of loans to a variety of businesses, including governmental, finance and insurance, not-for-profit, educational services and loans to entities providing services for real estate and construction. Service sector loans increased by $106 million compared to June 30, 2016. 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 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 $20 million and with three or more non-affiliated banks as participants. At September 30, 2016, the outstanding principal balance of these loans totaled $3.8 billion. Substantially all of these loans are to borrowers with local market relationships. We serve as the agent lender in approximately 17 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 30 percent and 12 percent of the total commercial real estate portfolio at September 30, 2016, 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 $3.8 billion or 23 percent of the loan portfolio at September 30, 2016. The outstanding balance of commercial real estate loans increased $212 million during the third quarter of 2016. Loans secured by industrial facilities grew by $192 million and loans secured by multifamily residential properties increased $87 million. This growth was partially offset by a $59 million decrease in other commercial real estate loan balances. The commercial real estate loan balance as a percentage of our total loan portfolio has ranged from 18 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 12. The Other category is primarily composed of California and Utah which represent $189 million or 5% and $128 million or 3%, respectively. All other states individually represent less than 3% of the total commercial real estate portfolio.

Table 12 -- Commercial Real Estate Loans by Collateral Location
(In thousands)

	Oklahoma	Texas	New Mexico	Arkansas	Colorado	Arizona	Kansas/Missouri	Other	Total
Retail	$89,739	$303,207	$115,024	$6,617	$44,206	$34,007	$ 16,825	$191,752	$801,377
Multifamily	85,547	315,561	12,190	26,040	62,895	74,790	92,571	204,179	873,773
Office	115,226	196,448	51,972	1,638	62,727	54,491	68,971	201,232	752,705
Industrial	83,956	226,431	25,298	70	23,994	26,909	67,949	383,414	838,021
Residential construction and land development	16,747	28,750	19,358	6,214	32,736	5,941	5,043	45,157	159,946
Other real estate	71,616	63,497	15,977	6,118	28,571	42,345	8,679	130,973	367,776
Total commercial real estate loans	$462,831	$1,133,894	$239,819	$46,697	$255,129	$238,483	$ 260,038	$1,156,707	$3,793,598

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, largely unchanged compared to June 30, 2016. 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 97 percent 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 September 30, 2016, $190 million of permanent residential mortgage loans are guaranteed by U.S. government agencies. We have minimal 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 $2.4 million compared to June 30, 2016.

Home equity loans totaled $713 million at September 30, 2016, a decrease of $6.3 million compared to June 30, 2016. 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 40 percent. The maximum loan amount available for our home equity loan products is generally $400 thousand. Revolving loans have a 5 year revolving period followed by a 15 year term of amortizing repayment. Interest-only home equity loans 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 September 30, 2016 by lien position and amortizing status follows in Table 13.

Table 13 -- Home Equity Loans
(In thousands)

	Revolving	Amortizing	Total
First lien	$ 45,605	$ 422,576	$ 468,181
Junior lien	102,044	142,701	244,745
Total home equity	$ 147,649	$ 565,277	$ 712,926

The distribution of residential mortgage and personal loans at September 30, 2016 is as follows in Table 14. Residential mortgage loans are distributed by collateral location. Personal loans are generally distributed by borrower location.

Table 14 -- 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	$ 186,695	$ 402,807	$ 39,408	$ 14,896	$ 155,399	$ 95,382	$ 46,250	$ 28,721	$ 969,558
Permanent mortgages guaranteed by U.S. government agencies	57,007	23,236	60,328	5,975	7,220	1,749	12,598	22,196	190,309
Home equity	413,581	135,532	105,911	5,507	35,197	8,387	8,437	374	712,926
Total residential mortgage	$ 657,283	$ 561,575	$ 205,647	$ 26,378	$ 197,816	$ 105,518	$ 67,285	$ 51,291	$ 1,872,793
Personal	$ 260,840	$ 274,693	$ 11,237	$ 6,758	$ 44,070	$ 29,607	$ 39,771	$ 11,256	$ 678,232

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 Bank are centrally managed by the Bank of Oklahoma.

Table 15 -- Loans Managed by Primary Geographical Market
(In thousands)

	Sept. 30, 2016	June 30, 2016	March 31, 2016	Dec. 31, 2015	Sept. 30, 2015
Bank of Oklahoma:					
Commercial	$3,545,924	$3,698,215	$3,656,034	$3,782,687	$3,514,391
Commercial real estate	795,806	781,458	747,689	739,829	677,372
Residential mortgage	1,401,166	1,415,766	1,411,409	1,409,114	1,405,235
Personal	271,420	246,229	204,158	255,387	185,463
Total Bank of Oklahoma	6,014,316	6,141,668	6,019,290	6,187,017	5,782,461
Bank of Texas:					
Commercial	3,903,218	3,901,632	3,936,809	3,908,425	3,752,193
Commercial real estate	1,400,709	1,311,408	1,211,978	1,204,202	1,257,741
Residential mortgage	229,345	222,548	217,539	219,126	222,395
Personal	278,167	233,304	210,456	203,496	194,051
Total Bank of Texas	5,811,439	5,668,892	5,576,782	5,535,249	5,426,380
Bank of Albuquerque:					
Commercial	398,147	398,427	402,082	375,839	368,027
Commercial real estate	299,785	322,956	323,059	313,422	312,953
Residential mortgage	110,478	114,226	117,655	120,507	121,232
Personal	11,333	10,569	10,823	11,557	10,477
Total Bank of Albuquerque	819,743	846,178	853,619	821,325	812,689
Bank of Arkansas:					
Commercial	83,544	81,227	79,808	92,359	76,044
Commercial real estate	72,649	69,235	66,674	69,320	82,225
Residential mortgage	6,936	6,874	7,212	8,169	8,063
Personal	6,757	7,025	918	819	4,921
Total Bank of Arkansas	169,886	164,361	154,612	170,667	171,253
Colorado State Bank & Trust:					
Commercial	1,013,314	1,076,620	1,030,348	987,076	1,029,694
Commercial real estate	254,078	237,569	219,078	223,946	229,835
Residential mortgage	59,838	59,425	52,961	53,782	50,138
Personal	42,901	35,064	24,497	23,384	30,683
Total Colorado State Bank & Trust	1,370,131	1,408,678	1,326,884	1,288,188	1,340,350
Bank of Arizona:					
Commercial	680,447	670,814	656,527	606,733	608,235
Commercial real estate	726,542	639,112	605,383	507,523	482,918
Residential mortgage	39,206	38,998	40,338	44,047	41,722
Personal	31,205	24,248	18,372	31,060	17,609

Total Bank of Arizona	1,477,400	1,373,172	1,320,620	1,189,363	1,150,484
Bank of Kansas City:					
Commercial	495,569	529,502	526,817	499,412	448,838
Commercial real estate	244,029	220,228	196,646	200,791	192,023
Residential mortgage	25,824	23,086	22,195	22,148	20,210
Personal	36,449	30,984	25,101	26,994	22,753
Total Bank of Kansas City	801,871	803,800	770,759	749,345	683,824
Total BOK Financial loans	$16,464,786	$16,406,749	$16,022,566	$15,941,154	$15,367,441

Loan Commitments

We enter into certain off-balance sheet arrangements in the normal course of business. These arrangements included unfunded loan commitments which totaled $8.7 billion and standby letters of credit which totaled $500 million at September 30, 2016. 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. Approximately $1.2 million of the outstanding standby letters of credit were issued on behalf of customers whose loans are nonperforming at September 30, 2016.

Table 16 – Off-Balance Sheet Credit Commitments
(In thousands)

	Sept. 30, 2016	June 30, 2016	March 31, 2016	Dec. 31, 2015	Sept. 30, 2015
Loan commitments	$8,697,322	$8,508,606	$8,567,017	$8,455,037	$8,325,540
Standby letters of credit	499,990	491,002	509,902	507,988	479,638
Mortgage loans sold with recourse	139,306	145,403	152,843	155,489	161,897

As more fully described in Note 6 to the Consolidated Financial Statements, 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 $90 million to borrowers in Oklahoma, $15 million to borrowers in Arkansas and $12 million to borrowers in New Mexico.

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 as described further in Note 6 to the Consolidated Financial Statements. For the period from 2010 through the third quarter of 2016 combined, approximately 21 percent of repurchase requests have currently resulted in actual repurchases or indemnification by the Company. The accrual for credit losses related to potential loan repurchases under representations and warranties totaled $3.2 million at September 30, 2016 and $3.3 million at June 30, 2016.

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 options 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 September 30, 2016, the net fair values of derivative contracts, before consideration of cash margin, reported as assets under these programs totaled $658 million compared to $877 million at June 30, 2016. At September 30, 2016, the fair value of our derivative contracts included $536 million for foreign exchange contracts, $52 million related to to-be-announced residential mortgage-backed securities, $49 million for interest rate swaps and $13 million for energy contracts. The aggregate net fair value of derivative contracts, before consideration of cash margin, held under these programs reported as liabilities totaled $654 million at September 30, 2016 and $872 million at June 30, 2016.

At September 30, 2016, total derivative assets were reduced by $10 million of cash collateral received from counterparties and total derivative liabilities were reduced by $83 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 September 30, 2016 follows in Table 17.

Table 17 -- Fair Value of Derivative Contracts
(In thousands)

Customers	$355,348
Banks and other financial institutions	289,162
Exchanges and clearing organizations	3,233
Fair value of customer risk management program asset derivative contracts, net	$647,743

At September 30, 2016, our largest derivative exposure was to a customer for an interest rate derivative contract which totaled $6.5 million. At September 30, 2016, our aggregate gross exposure to internationally active domestic financial institutions was approximately $54 million comprised of $49 million of cash and securities positions and $5.5 million of gross derivative positions. We have no direct exposure to European sovereign debt and our aggregate gross exposure to European financial institutions totaled $9.3 million at September 30, 2016.

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 $26.57 per barrel of oil would decrease the fair value of derivative assets by $8.8 million. An increase in prices equivalent to $74.07 per barrel of oil would increase the fair value of derivative assets by $132 million as current prices move further away from the fixed prices embedded in our existing contracts. Liquidity requirements of this program are also affected by our credit rating. A decrease in our credit rating to below investment grade would increase our obligation to post cash margin on existing contracts by approximately $18 million. 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 September 30, 2016, 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 September 30, 2016, the combined allowance for loan losses and off-balance sheet credit losses totaled $256 million or 1.56 percent of outstanding loans and 116 percent of nonaccruing loans, excluding loans guaranteed by U.S. government agencies. The allowance for loan losses was $245 million and the accrual for off-balance sheet credit losses was $11 million. At June 30, 2016, the combined allowance for credit losses was $252 million or 1.54 percent of outstanding loans and 111 percent of nonaccruing loans, excluding loans guaranteed by U.S. government agencies. The allowance for loan losses was $243 million and the accrual for off-balance sheet credit losses was $9.0 million. The portion of the combined allowance for credit losses attributed to the energy portfolio totaled 3.67 percent of outstanding energy loans at September 30, 2016, an increase from 3.58 percent of outstanding energy loans at June 30, 2016.

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. After evaluating all credit factors, we recorded a $10.0 million provision for credit losses during the third quarter of 2016, compared to $20.0 million in the second quarter of 2016 and $7.5 million in the third quarter of 2015. The lower provision for credit losses compared to previous quarter reflects continued improvement in credit metric trends over the previous quarter largely driven by energy price stability and decreased rates of newly identified nonaccruing and potential problem loans.

Table 18 -- Summary of Loan Loss Experience
(In thousands)

	Three Months Ended Sept. 30, 2016	June 30, 2016	March 31, 2016	Dec. 31, 2015	Sept. 30, 2015
Allowance for loan losses:					
Beginning balance	$243,259	$233,156	$225,524	$204,116	$201,087
Loans charged off:					
Commercial	(6,266)	(7,355)	(22,126)	(2,182)	(3,497)
Commercial real estate	—	—	—	(900)	—
Residential mortgage	(285)	(345)	(474)	(421)	(446)
Personal	(1,550)	(1,145)	(1,391)	(1,348)	(1,331)
Total	(8,101)	(8,845)	(23,991)	(4,851)	(5,274)
Recoveries of loans previously charged off:					
Commercial	177	223	488	928	759
Commercial real estate	521	282	85	120	1,865
Residential mortgage	650	200	163	137	205
Personal	690	681	783	685	692
Total	2,038	1,386	1,519	1,870	3,521
Net loans recovered (charged off)	(6,063)	(7,459)	(22,472)	(2,981)	(1,753)
Provision for loan losses	7,907	17,562	30,104	24,389	4,782
Ending balance	$245,103	$243,259	$233,156	$225,524	$204,116
Accrual for off-balance sheet credit losses:					
Beginning balance	$9,045	$6,607	$1,711	$3,600	$882
Provision for off-balance sheet credit losses	2,093	2,438	4,896	(1,889)	2,718
Ending balance	$11,138	$9,045	$6,607	$1,711	$3,600
Total combined provision for credit losses	$10,000	$20,000	$35,000	$22,500	$7,500
Allowance for loan losses to loans outstanding at period-end	1.49 %	1.48 %	1.46 %	1.41 %	1.33 %
Net charge-offs (annualized) to average loans	0.15 %	0.18 %	0.56 %	0.08 %	0.05 %
Total provision for credit losses (annualized) to average loans	0.24 %	0.49 %	0.88 %	0.58 %	0.20 %
Recoveries to gross charge-offs	25.16 %	15.67 %	6.33 %	38.55 %	66.76 %
Accrual for off-balance sheet credit losses to off-balance sheet credit commitments	0.12 %	0.10 %	0.07 %	0.02 %	0.04 %
Combined allowance for credit losses to loans outstanding at period-end	1.56 %	1.54 %	1.50 %	1.43 %	1.35 %

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 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 September 30, 2016, impaired loans totaled $412 million, including $43 million with specific allowances of $6.6 million and $369 million with no specific allowances. At June 30, 2016, impaired loans totaled $420 million, including $32 million of impaired loans with specific allowances of $4.3 million and $388 million with no specific allowances.

Risk grading guidelines, recently in the Office of the Comptroller of the Currency ("OCC") Oil and Gas Lending Handbook, heavily weight ability to repay total borrower debt, regardless of collateral position. This change in grading methodology has increased loans especially mentioned, potential problem loans and nonaccrual loans. Because substantially all of our energy portfolio is supported by senior lien positions that, in general, have substantially lower loss exposure, the historical relationship between loan classification and loss exposure may be more difficult to correlate.
The most recently completed energy portfolio redetermination supported that $100 million of impaired energy loans required no allowance for credit losses based on the adequacy of collateral. In addition, $85 million of impaired energy loans are current on all payments due.

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 $210 million at September 30, 2016, a decrease of $1.9 million compared to June 30, 2016, primarily due to a $5.9 million decrease in the general allowance attributed to the commercial loan segment, partially offset by a $3.1 million increase in the general allowance attributed to the commercial real estate loan 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 $28 million at September 30, 2016, up from $27 million at June 30, 2016. The nonspecific allowance includes consideration of the indirect impact that low energy prices might have on the broader economies within our geographical footprint that are highly dependent on the energy industry.

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 $478 million at September 30, 2016, primarily composed of $361 million of energy loans, $31 million of service sector loans, $27 million of wholesale/retail sector loans, $20 million of manufacturing sector loans, $19 million of healthcare sector loans and $10 million of other commercial and industrial loans. Potential problem loans totaled $501 million at June 30, 2016 including $421 million of potential problem energy loans.

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. Energy loans classified as other loans especially mentioned totaled $147 million or 6 percent of outstanding energy loans at September 30, 2016 and $198 million or 7 percent of outstanding energy loans at June 30, 2016.

We updated our energy loan portfolio stress test at quarter end to estimate how the energy portfolio may respond in a prolonged low-price environment. Stress test assumptions include a starting price of $2.00 per million BTUs for natural gas and $37.50 per barrel of oil, gradually escalating over seven years to a maximum of $3.00 and $55.00, respectively. In this scenario, the energy portfolio exhibits greater stress than we have experienced to date and losses would be expected to exceed our 15 year historical loss rate on energy loans of 7 basis points. The results of the stress test are factored into our expectation that the loan loss provision could range from $70 million to $85 million for 2016. This expectation is based upon current observed conditions.

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 loans charged off of $6.1 million in the third quarter of 2016, compared to $7.5 million in the second quarter of 2016 and $1.8 million in the third quarter of 2015. The ratio of net loans charged off to average loans on an annualized basis was 0.15 percent for the third quarter of 2016, compared with 0.18 percent for the second quarter of 2016 and 0.05 percent for the third quarter of 2015.

Net commercial loans charged off totaled $6.1 million in the third quarter of 2016, compared to net loans charged off of $7.1 million in the second quarter of 2016. Charge-offs in both the third and second quarter of 2016 resulted primarily from energy loans. Net commercial real estate loan recoveries were $521 thousand in the third quarter, compared to net recoveries of $282 thousand in the second quarter. Residential mortgage net recoveries were $365 thousand and personal loan net charge-offs were $860 thousand for the third quarter. Personal loan net charge-offs include deposit account overdraft losses.

Nonperforming Assets

Table 19 -- Nonperforming Assets
(In thousands)

	Sept. 30, 2016	June 30, 2016	March 31, 2016	Dec. 31, 2015	Sept. 30, 2015
Nonaccruing loans:					
Commercial	$176,464	$181,989	$174,652	$76,424	$33,798
Commercial real estate	7,350	7,780	9,270	9,001	10,956
Residential mortgage	52,452	57,061	57,577	61,240	44,099
Personal	686	354	331	463	494
Total nonaccruing loans	236,952	247,184	241,830	147,128	89,347
Accruing renegotiated loans guaranteed by U.S. government agencies	80,306	78,806	77,597	74,049	81,598
Real estate and other repossessed assets	31,941	24,054	29,896	30,731	33,116
Total nonperforming assets	$349,199	$350,044	$349,323	$251,908	$204,061
Total nonperforming assets excluding those guaranteed by U.S. government agencies	$253,461	$251,497	$252,176	$155,959	$118,578
Nonaccruing loans by loan portfolio segment and class:					
Commercial:					
Energy	$142,966	$168,145	$159,553	$61,189	$17,880
Services	8,477	9,388	9,512	10,290	10,692
Wholesale / retail	2,453	2,772	3,685	2,919	3,058
Manufacturing	274	293	312	331	352
Healthcare	855	875	1,023	1,072	1,218
Other commercial and industrial	21,439	516	567	623	598
Total commercial	176,464	181,989	174,652	76,424	33,798
Commercial real estate:					
Residential construction and land development	3,739	4,261	4,789	4,409	4,748
Retail	1,249	1,265	1,302	1,319	1,648
Office	882	606	629	651	684
Multifamily	51	65	250	274	185
Industrial	76	76	76	76	76
Other commercial real estate	1,353	1,507	2,224	2,272	3,615
Total commercial real estate	7,350	7,780	9,270	9,001	10,956
Residential mortgage:					
Permanent mortgage	25,956	27,228	27,497	28,984	30,660
Permanent mortgage guaranteed by U.S. government agencies	15,432	19,741	19,550	21,900	3,885
Home equity	11,064	10,092	10,530	10,356	9,554
Total residential mortgage	52,452	57,061	57,577	61,240	44,099
Personal	686	354	331	463	494
Total nonaccruing loans	$236,952	$247,184	$241,830	$147,128	$89,347

	Sept. 30, 2016	June 30, 2016	March 31, 2016	Dec. 31, 2015	Sept. 30, 2015
Nonaccruing loans as % of outstanding balance for class:					
Commercial:					
Energy	5.67 %	5.97 %	5.27 %	1.98 %	0.63 %
Services	0.29 %	0.33 %	0.35 %	0.37 %	0.40 %
Wholesale / retail	0.15 %	0.18 %	0.25 %	0.21 %	0.21 %
Manufacturing	0.05 %	0.05 %	0.05 %	0.06 %	0.06 %
Healthcare	0.04 %	0.04 %	0.05 %	0.06 %	0.07 %
Other commercial and industrial	4.50 %	0.10 %	0.12 %	0.12 %	0.12 %
Total commercial	1.74 %	1.76 %	1.70 %	0.75 %	0.34 %
Commercial real estate:					
Residential construction and land development	2.34 %	2.70 %	2.79 %	2.75 %	3.09 %
Retail	0.16 %	0.16 %	0.16 %	0.17 %	0.21 %
Office	0.12 %	0.08 %	0.09 %	0.10 %	0.11 %
Multifamily	0.01 %	0.01 %	0.03 %	0.04 %	0.02 %
Industrial	0.01 %	0.01 %	0.01 %	0.01 %	0.01 %
Other commercial real estate	0.37 %	0.35 %	0.56 %	0.65 %	0.99 %
Total commercial real estate	0.19 %	0.22 %	0.28 %	0.28 %	0.34 %
Residential mortgage:					
Permanent mortgage	2.68 %	2.81 %	2.90 %	3.07 %	3.27 %
Permanent mortgage guaranteed by U.S. government agencies	8.11 %	10.24 %	9.91 %	11.12 %	2.02 %
Home equity	1.55 %	1.40 %	1.46 %	1.41 %	1.29 %
Total residential mortgage	2.80 %	3.03 %	3.08 %	3.26 %	2.36 %
Personal	0.10 %	0.06 %	0.07 %	0.08 %	0.11 %
Total nonaccruing loans	1.44 %	1.51 %	1.51 %	0.92 %	0.58 %
Ratios:					
Allowance for loan losses to nonaccruing loans[1]	110.65 %	106.95 %	104.89 %	180.09 %	238.84 %
Accruing loans 90 days or more past due[1]	$3,839	$2,899	$8,019	$1,207	$101

[1] Excludes residential mortgages guaranteed by agencies of the U.S. Government.

Nonperforming assets totaled $349 million or 2.12 percent of outstanding loans and repossessed assets at September 30, 2016. Nonaccruing loans totaled $237 million, accruing renegotiated residential mortgage loans totaled $80 million and real estate and other repossessed assets totaled $32 million. All accruing renegotiated residential mortgage loans and $15 million of nonaccruing loans are guaranteed by U.S. government agencies. Excluding assets guaranteed by U.S. government agencies, nonperforming assets increased $2.0 million during the third quarter. The Company generally retains nonperforming assets to maximize potential recovery which may cause future nonperforming assets to decrease more slowly.

Loans are generally classified as nonaccruing when it becomes probable that we will not collect the full contractual principal and interest. As more fully discussed in Note 4 to the Consolidated Financial Statements, we may modify loans in troubled debt restructurings. Modifications may include extension of payment terms and rate concessions. We generally do not forgive principal or accrued but unpaid interest. All loans modified in troubled debt restructurings, except for residential mortgage loans guaranteed by U.S. government agencies, are classified as nonaccruing. We may also renew matured nonaccruing loans. All nonaccruing loans, including those renewed or modified in troubled debt restructurings, are charged off when the loan balance is no longer covered by the paying capacity of the borrower based on a quarterly evaluation of available cash resources and collateral value. All nonaccruing loans generally remain on nonaccrual status until full collection of principal and interest in accordance with the original terms, including principal previously charged off, is probable. We generally do not voluntarily modify personal loans to troubled borrowers. Personal loans modified at the direction of bankruptcy court orders are identified as troubled debt restructurings and classified as nonaccruing.

At September 30, 2016, renegotiated loans consist solely of accruing residential mortgage loans guaranteed by U.S. government agencies that have been modified in troubled debt restructurings. See Note 4 to the Consolidated Financial Statements for additional discussion of troubled debt restructurings. Generally, we modify residential mortgage loans primarily by reducing interest rates and extending the number of payments in accordance with U.S. government agency guidelines. Generally, no unpaid principal or interest is forgiven. Interest continues to accrue based on the modified terms of the loan. Modified loans guaranteed by U.S. government agencies under residential mortgage loan programs may be sold once they become eligible according to U.S. government agency guidelines.

A rollforward of nonperforming assets for the three and nine months ended September 30, 2016 follows in Table 20.

Table 20 -- Rollforward of Nonperforming Assets
(In thousands)

	Three Months Ended September 30, 2016			
	Nonaccruing Loans	Renegotiated Loans	Real Estate and Other Repossessed Assets	Total Nonperforming Assets
Balance, June 30, 2016	$247,184	$ 78,806	$ 24,054	$ 350,044
Additions	28,909	12,176	—	41,085
Payments	(10,841)	(409)	—	(11,250)
Charge-offs	(8,101)	—	—	(8,101)
Net gains and write-downs	—	—	1,607	1,607
Foreclosure of nonperforming loans	(15,208)	—	15,208	—
Foreclosure of loans guaranteed by U.S. government agencies	(5,551)	(2,446)	—	(7,997)
Proceeds from sales	—	(7,392)	(8,892)	(16,284)
Net transfers to nonaccruing loans	560	(560)	—	—
Other, net	—	131	(36)	95
Balance, Sept. 30, 2016	$236,952	$ 80,306	$ 31,941	$ 349,199

- 35 -

	Nine Months Ended September 30, 2016			
	Nonaccruing Loans	Renegotiated Loans	Real Estate and Other Repossessed Assets	Total Nonperforming Assets
Balance, Dec. 31, 2015	$147,128	$ 74,049	$ 30,731	$ 251,908
Additions	240,918	35,685	—	276,603
Payments	(77,561)	(1,423)	—	(78,984)
Charge-offs	(40,937)	—	—	(40,937)
Net gains and write-downs	—	—	1,805	1,805
Foreclosure of nonperforming loans	(20,580)	—	20,580	—
Foreclosure of loans guaranteed by U.S. government agencies	(13,912)	(6,870)	—	(20,782)
Proceeds from sales	—	(19,498)	(21,117)	(40,615)
Net transfers to nonaccruing loans	1,941	(1,941)	—	—
Return to accrual status	(45)	—	—	(45)
Other, net	—	304	(58)	246
Balance, Sept. 30, 2016	$236,952	$ 80,306	$ 31,941	$ 349,199

We foreclose on loans guaranteed by U.S. government agencies in accordance with agency guidelines. Generally these loans are not eligible for modification programs or have failed to comply with modified loan terms. Principal is guaranteed by agencies of the U.S. government, subject to limitations and credit risk is minimal. These properties will be conveyed to the agencies once applicable criteria have been met.

Commercial

Nonaccruing commercial loans totaled $176 million or 1.74 percent of total commercial loans at September 30, 2016 and $182 million or 1.76 percent of commercial loans at June 30, 2016. There were $22 million in newly identified nonaccruing commercial loans during the quarter, offset by $7 million in payments and $6.3 million of charge-offs. Newly identified nonaccruing commercial loans were primarily other commercial and industrial loans and energy loans.

Nonaccruing commercial loans at September 30, 2016 were primarily composed of $143 million or 5.67 percent of total energy loans, and $21 million or 4.50 percent of total other commercial and industrial sector loans.

Commercial Real Estate

Nonaccruing commercial real estate loans totaled $7.4 million or 0.19 percent of outstanding commercial real estate loans at September 30, 2016, compared to $7.8 million or 0.22 percent of outstanding commercial real estate loans at June 30, 2016. Newly identified nonaccruing commercial real estate loans of $1.0 million were offset by $1.5 million of cash payments received. There were no charge-offs or foreclosures of nonaccruing commercial real estate loans during the third quarter.

Nonaccruing commercial real estate loans were primarily composed of $3.7 million or 2.34 percent of residential construction and land development loans.

Residential Mortgage and Personal

Nonaccruing residential mortgage loans totaled $52 million or 2.80 percent of outstanding residential mortgage loans at September 30, 2016, compared to $57 million or 3.03 percent of outstanding residential mortgage loans at June 30,

2016. Newly identified nonaccruing residential mortgage loans totaling $4.0 million were offset by $6.3 million of foreclosures, $2.6 million of payments and $285 thousand of loans charged off during the quarter.

Nonaccruing residential mortgage loans primarily consist of non-guaranteed permanent residential mortgage loans which totaled $26 million or 2.68 percent of outstanding non-guaranteed permanent residential mortgage loans at September 30, 2016. Nonaccruing home equity loans totaled $11 million or 1.55 percent of total home equity loans.

Payments of accruing residential mortgage loans and personal loans may be delinquent. The composition of residential mortgage loans and personal loans past due but still accruing is included in the following Table 21. Substantially all non-guaranteed residential loans past due 90 days or more are nonaccruing. Residential mortgage loans 30 to 59 days past due decreased $2.6 million in the third quarter to $5.1 million at September 30, 2016 and residential mortgage loans 60 to 89 days past due increased by $224 thousand. Personal loans past due 30 to 59 days also decreased by $209 thousand compared to June 30, 2016 and personal loans 60 to 89 days increased $90 thousand.

Table 21 -- Residential Mortgage and Personal Loans Past Due
(In thousands)

	September 30, 2016			June 30, 2016		
	90 Days or More	60 to 89 Days	30 to 59 Days	90 Days or More	60 to 89 Days	30 to 59 Days
Residential mortgage:						
Permanent mortgage[1]	$—	$ 202	$ 3,547	$—	$ 124	$ 5,798
Home equity	—	305	1,526	20	159	1,889
Total residential mortgage	$—	$ 507	$ 5,073	20	$ 283	$ 7,687
Personal	$ 13	$ 148	$ 191	$—	$ 58	$ 400

[1] Excludes past due residential mortgage loans guaranteed by agencies of the U.S. government.

Real Estate and Other Repossessed Assets

Real estate and other repossessed assets are assets acquired in partial or total forgiveness of loans. The assets are carried at the lower of cost as determined by fair value at the date of foreclosure or current fair value, less estimated selling costs.

Real estate and other repossessed assets totaled $32 million at September 30, 2016, an increase of $7.9 million compared to June 30, 2016. The distribution of real estate and other repossessed assets attributed by geographical market is included in Table 22 following.

Table 22 -- Real Estate and Other Repossessed Assets by Collateral Location
(In thousands)

	Oklahoma	Texas	Colorado	Arkansas	New Mexico	Arizona	Kansas/ Missouri	Other	Total
1-4 family residential properties	$ 4,181	$ 559	$ —	$ 625	$ 1,733	$ 2,539	$ 626	$ 69	$ 10,332
Developed commercial real estate properties	64	—	2,637	—	590	198	1,296	—	4,785
Undeveloped land	225	1,309	—	—	—	306	—	—	1,840
Residential land development properties	38	—	210	—	—	685	2	—	935
Oil and gas properties	—	14,042					—	—	14,042
Other	3	4	—	—	—	—	—	—	7
Total real estate and other repossessed assets	$ 4,511	$ 15,914	$ 2,847	$ 625	$ 2,323	$ 3,728	$ 1,924	$ 69	$ 31,941

Undeveloped land is primarily zoned for commercial development. Developed commercial real estate properties are primarily completed with no additional construction necessary for sale.

Liquidity and Capital

Subsidiary Bank

Deposits and borrowed funds are the primary sources of liquidity for BOKF, NA, the wholly owned subsidiary bank of BOK Financial. Based on the average balances for the third quarter of 2016, approximately 64 percent of our funding was provided by deposit accounts, 21 percent from borrowed funds, and 10 percent from equity. Our funding sources, which primarily include deposits and borrowings from the Federal Home Loan Banks and other banks, provide adequate liquidity to meet our operating needs.

Deposit accounts represent our largest funding source. We compete for retail and commercial deposits by offering a broad range of products and services and focusing on customer convenience. Retail deposit growth is supported through our Perfect Banking sales and customer service program, free checking, online bill paying services, mobile banking services, an extensive network of branch locations and ATMs and a 24-hour Express Bank call center. Commercial deposit growth is supported by offering treasury management and lockbox services. We also acquire brokered deposits when the cost of funds is advantageous to other funding sources.

Table 23 - Average Deposits by Line of Business
(In thousands)

	Three Months Ended				
	Sept. 30, 2016	June 30, 2016	March 31, 2016	Dec. 31, 2015	Sept. 30, 2015
Commercial Banking	$8,317,341	$8,403,408	$8,457,750	$8,549,240	$8,627,281
Consumer Banking	6,660,514	6,634,362	6,575,893	6,652,104	6,675,990
Wealth Management	4,913,409	4,521,031	4,696,013	4,583,474	4,490,082
Subtotal	19,891,264	19,558,801	19,729,656	19,784,818	19,793,353
Funds Management and other	873,750	908,931	896,965	920,632	899,795
Total	$20,765,014	$20,467,732	$20,626,621	$20,705,450	$20,693,148

Average deposits for the third quarter of 2016 totaled $20.8 billion and represented approximately 64 percent of total liabilities and capital, up from $20.5 billion and 64 percent of total liabilities and capital for the second quarter of 2016. Average deposits increased $297 million from the second quarter of 2016. Average demand deposits increased by $335 million and average interest-bearing transaction accounts increased by $60 million, partially offset by a $100 million decrease in average time deposit balances.

Average Commercial Banking deposit balances decreased $86 million compared to the second quarter of 2016, primarily due to a $102 million decrease in energy customer balances and a $62 million decrease in other commercial and industrial balances, partially offset by a $45 million increase in small business customer balances and a $21 million increase in commercial real estate customer balances. Commercial customers continue to retain large cash reserves primarily due to low yields available on other high quality investment alternatives and to minimize deposit service charges through the earnings credit. The earnings credit is a non-cash method that enables commercial customers to offset deposit service charges based on account balances. If economic activity were to improve significantly or if short-term interest rates were to increase, deposits may decline as customers deploy funds into projects or shift demand deposits into money market instruments.

Average Consumer Banking deposit balances increased $26 million. Demand deposit balances increased by $66 million and interest-bearing transaction deposits increased by $1.4 million, partially offset by a $38 million decrease in time deposit balances. Growth in Consumer Banking deposits includes escrow funds associated with mortgage loan servicing. These deposits tend to grow throughout the year and are largely disbursed near year end.

Average Wealth Management deposits increased $392 million compared to the second quarter of 2016 primarily due to a $346 million increase in interest-bearing transaction account balances and an $84 million increase in demand deposits, partially offset by a $39 million decrease in time deposit balances. Growth in Wealth Management deposits include funds being held temporarily in anticipation of money market reforms.

Average time deposits for the third quarter of 2016 included $519 million of brokered deposits, an increase of $94 million over the second quarter of 2016. Average interest-bearing transaction accounts for the third quarter included $678 million of brokered deposits, an increase of $115 million over the second quarter of 2016. Changes in average brokered deposits largely affect Funds Management and Other.

The distribution of our period end deposit account balances among principal markets follows in Table 24.

Table 24 -- Period End Deposits by Principal Market Area
(In thousands)

	Sept. 30, 2016	June 30, 2016	Mar. 31,2016	Dec. 31, 2015	Sept. 30, 2015
Bank of Oklahoma:					
Demand	$4,158,273	$4,020,181	$3,813,128	$4,133,520	$3,834,145
Interest-bearing:					
Transaction	5,701,983	5,741,302	5,706,067	5,971,819	5,783,258
Savings	242,959	247,984	246,122	226,733	225,580
Time	1,091,464	1,167,271	1,198,022	1,202,274	1,253,137
Total interest-bearing	7,036,406	7,156,557	7,150,211	7,400,826	7,261,975
Total Bank of Oklahoma	11,194,679	11,176,738	10,963,339	11,534,346	11,096,120
Bank of Texas:					
Demand	2,734,981	2,677,253	2,571,883	2,627,764	2,689,493
Interest-bearing:					
Transaction	2,240,040	2,035,634	2,106,905	2,132,099	1,996,223
Savings	84,642	83,862	83,263	77,902	74,674
Time	528,380	516,231	530,657	549,740	554,106
Total interest-bearing	2,853,062	2,635,727	2,720,825	2,759,741	2,625,003
Total Bank of Texas	5,588,043	5,312,980	5,292,708	5,387,505	5,314,496
Bank of Albuquerque:					
Demand	584,681	530,853	557,200	487,286	520,785
Interest-bearing:					
Transaction	555,326	573,690	560,684	563,723	529,862
Savings	54,480	49,200	47,187	43,672	41,380
Time	244,706	250,068	259,630	267,821	281,426
Total interest-bearing	854,512	872,958	867,501	875,216	852,668
Total Bank of Albuquerque	1,439,193	1,403,811	1,424,701	1,362,502	1,373,453
Bank of Arkansas:					
Demand	32,203	30,607	31,318	27,252	25,397
Interest-bearing:					
Transaction	313,480	278,335	265,803	202,857	290,728
Savings	2,051	1,853	1,929	1,747	1,573
Time	17,534	18,911	21,035	24,983	26,203
Total interest-bearing	333,065	299,099	288,767	229,587	318,504
Total Bank of Arkansas	365,268	329,706	320,085	256,839	343,901

	Sept. 30, 2016	June 30, 2016	Mar. 31,2016	Dec. 31, 2015	Sept. 30, 2015
Colorado State Bank & Trust:					
Demand	517,063	528,124	413,506	497,318	430,675
Interest-bearing:					
Transaction	623,055	625,240	610,077	616,697	655,206
Savings	31,613	31,509	33,108	31,927	31,398
Time	247,667	254,164	271,475	296,224	320,279
Total interest-bearing	902,335	910,913	914,660	944,848	1,006,883
Total Colorado State Bank & Trust	1,419,398	1,439,037	1,328,166	1,442,166	1,437,558
Bank of Arizona:					
Demand	418,718	396,837	341,828	326,324	306,425
Interest-bearing:					
Transaction	303,750	302,297	313,825	358,556	293,319
Savings	2,959	3,198	3,277	2,893	4,121
Time	27,935	28,681	29,053	29,498	26,750
Total interest-bearing	334,644	334,176	346,155	390,947	324,190
Total Bank of Arizona	753,362	731,013	687,983	717,271	630,615
Bank of Kansas City:					
Demand	235,445	240,754	221,812	197,424	234,847
Interest-bearing:					
Transaction	86,526	112,371	146,405	153,203	150,253
Savings	1,645	1,656	1,619	1,378	1,570
Time	11,945	11,735	31,502	35,524	36,630
Total interest-bearing	100,116	125,762	179,526	190,105	188,453
Total Bank of Kansas City	335,561	366,516	401,338	387,529	423,300
Total BOK Financial deposits	$21,095,504	$20,759,801	$20,418,320	$21,088,158	$20,619,443

In addition to deposits, liquidity is provided primarily by federal funds purchased, securities repurchase agreements and Federal Home Loan Bank borrowings. Federal funds purchased consist primarily of unsecured, overnight funds acquired from other financial institutions. Funds are primarily purchased from bankers' banks and Federal Home Loan banks from across the country. The largest single source of wholesale federal funds purchased totaled $44 million at September 30, 2016. Securities repurchase agreements generally mature within 90 days and are secured by certain available for sale securities. Federal Home Loan Bank borrowings are generally short term and are secured by a blanket pledge of eligible collateral (generally unencumbered U.S. Treasury and agency mortgage-backed securities, 1-4 family residential mortgage loans, multifamily and other qualifying commercial real estate loans). Amounts borrowed from the Federal Home Loan Bank of Topeka averaged $6.3 billion during the quarter, compared to $6.0 billion in the second quarter of 2016.

At September 30, 2016, the estimated unused credit available to BOKF, NA from collateralized sources was approximately $4.3 billion.

A summary of other borrowings for BOK Financial on a consolidated basis follows in Table 25.

Table 25 -- Borrowed Funds
(In thousands)

		Three Months Ended September 30, 2016				Three Months Ended June 30, 2016		
	Sept. 30, 2016	Average Balance During the Quarter	Rate	Maximum Outstanding At Any Month End During the Quarter	June 30, 2016	Average Balance During the Quarter	Rate	Maximum Outstanding At Any Month End During the Quarter
Funds purchased	$109,031	$68,280	0.19%	$ 109,031	$56,780	$70,682	0.19%	$ 70,264
Repurchase agreements	504,573	522,822	0.04%	547,335	472,683	611,264	0.05%	663,538
Other borrowings:								
Federal Home Loan Bank advances	6,500,000	6,309,783	0.55%	6,500,000	5,800,000	6,046,154	0.55%	6,400,000
GNMA repurchase liability	16,624	14,560	4.67%	16,624	12,769	12,210	4.81%	12,769
Other	16,819	18,026	2.40%	18,067	17,967	17,664	2.44%	17,967
Total other borrowings	6,533,443	6,342,369	0.57%		5,830,736	6,076,028	0.57%	
Subordinated debentures	144,631	255,890	3.84%	371,827	371,812	232,795	1.52%	371,812
Total Borrowed Funds	$7,291,678	$7,189,361	0.64%		$6,732,011	$6,990,769	0.55%	

In 2007, BOKF, NA issued $250 million of subordinated debt due May 15, 2017 to fund the Worth National Bank and First United Bank acquisitions and fund continued asset growth. Interest on this debt was based on a fixed rate of 5.75 percent through May 14, 2012 which then converted to a floating rate of three-month LIBOR plus 0.69 percent. The $227 million of this subordinated debt that remained outstanding was called during the third quarter of 2016.

BOKF, NA also has a liability related to the repurchase of certain delinquent residential mortgage loans previously sold in GNMA mortgage pools. Interest is payable monthly at rates contractually due to investors.

Parent Company

On June 27, 2016, the parent company completed the issuance and sale of $150 million of subordinated debt that will mature on June 30, 2056. Interest on this debt bears interest at the rate of 5.375%, payable quarterly. On June 30, 2021, the parent company will have the option to redeem the debt at the principal amount plus accrued interest, subject to regulatory approval.

At September 30, 2016, cash and interest-bearing cash and cash equivalents held by the parent company totaled $336 million. The primary sources of liquidity for BOK Financial are cash on hand and dividends from BOKF, NA. Dividends from the bank are limited by various banking regulations to net profits, as defined, for the year plus retained profits for the two preceding years. Dividends are further restricted by minimum capital requirements. At September 30, 2016, based upon the most restrictive limitations as well as management's internal capital policy, the bank could declare up to $172 million of dividends without regulatory approval. Dividend constraints may be alleviated through increases in retained earnings, capital issuances or changes in risk weighted assets. Future losses or increases in required regulatory capital at the bank could affect its ability to pay dividends to the parent company.

Our equity capital at September 30, 2016 was $3.4 billion, an increase of $30 million over June 30, 2016. Net income less cash dividends paid increased equity $46 million during the third quarter of 2016. Accumulated other comprehensive income decreased $22 million primarily related to the change in unrealized gains on available for sale securities due to changes in interest rates. Capital is managed to maximize long-term value to the shareholders. Factors considered in managing capital include projections of future earnings, asset growth and acquisition strategies, and regulatory and debt covenant requirements. Capital management may include subordinated debt issuance, share repurchase and stock and cash dividends.

On October 27, 2015, the board of directors authorized the Company to purchase up to five million common shares, subject to market conditions, securities law and other regulatory compliance limitations. As of September 30, 2016, a cumulative total of 2,179,243 shares have been repurchased under this authorization. No shares were repurchased in the third quarter of 2016.

BOK Financial and BOKF, NA are subject to various capital requirements administered by federal agencies. Failure to meet minimum capital requirements can result in certain mandatory and possibly additional discretionary actions by regulators that could have a material impact on operations. These capital requirements include quantitative measures of assets, liabilities and off-balance sheet items. The capital standards are also subject to qualitative judgments by the regulators.
Effective January 1, 2015 for BOK Financial, regulatory capital rules establish a 7 percent threshold for the common equity Tier 1 ratio consisting of a minimum level plus capital conservation buffer. The Company has elected to exclude unrealized gains and losses from available for sale securities from its calculation of Tier 1 capital, consistent with the treatment under previous capital rules.

A summary of minimum capital requirements, including capital conservation buffer follows in Table 26. A bank which falls below these levels, including the capital conservation buffer, would be subject to regulatory restrictions on capital distributions (including but not limited to dividends and share repurchases) and executive bonus payments.

The capital ratios for BOK Financial on a consolidated basis are presented in Table 26.

Table 26 -- Capital Ratios

	Minimum Capital Requirement[1]	Capital Conservation Buffer[2]	Minimum Capital Requirement Including Capital Conservation Buffer	Sept. 30, 2016	June 30, 2016	Sept. 30, 2015
Risk-based capital:						
Common equity Tier 1	4.50 %	2.50 %	7.00 %	11.99 %	11.86 %	12.78 %
Tier 1 capital	6.00 %	2.50 %	8.50 %	11.99 %	11.86 %	12.78 %
Total capital	8.00 %	2.50 %	10.50 %	13.65 %	13.51 %	13.89 %
Tier 1 Leverage	4.00 %	N/A	4.00 %	9.06 %	9.06 %	9.55 %
Average total equity to average assets				10.39 %	10.46 %	11.05 %
Tangible common equity ratio				9.19 %	9.33 %	9.78 %

[1] Effective January 1, 2015
[2] Effective January 1, 2016

Capital resources of financial institutions are also regularly measured by the tangible common shareholders' equity ratio. Tangible common shareholders' equity is shareholders' equity as defined by generally accepted accounting principles in the United States of America ("GAAP") less intangible assets and equity which does not benefit common shareholders. Equity that does not benefit common shareholders includes preferred equity. This non-GAAP measure is a valuable indicator of a financial institution's capital strength since it eliminates intangible assets from shareholders' equity and retains the effect of unrealized losses on securities and other components of accumulated other comprehensive income in shareholders' equity.

Table 27 provides a reconciliation of the non-GAAP measures with financial measures defined by GAAP.

Table 27 -- Non-GAAP Measure
(Dollars in thousands)

	Sept. 30, 2016	June 30, 2016	March 31, 2016	Dec. 31, 2015	Sept. 30, 2015

Tangible common equity ratio:					
Total shareholders' equity	$3,398,311	$3,368,833	$3,321,555	$3,230,556	$3,377,226
Less: Goodwill and intangible assets, net	424,716	426,111	428,733	429,370	430,460
Tangible common equity	2,973,595	2,942,722	2,892,822	2,801,186	2,946,766
Total assets	32,779,231	31,970,450	31,413,945	31,476,128	30,566,905
Less: Goodwill and intangible assets, net	424,716	426,111	428,733	429,370	430,460
Tangible assets	$32,354,515	$31,544,339	$30,985,212	$31,046,758	$30,136,445
Tangible common equity ratio	9.19 %	9.33 %	9.34 %	9.02 %	9.78 %

On October 20, 2016, BOK Financial published the results of its annual capital stress test. In accordance with the Dodd-Frank Act, the Federal Reserve must publish regulations that require bank holding companies with $10 billion to $50 billion in assets to perform annual capital stress tests. The Dodd-Frank Act Stress Test ("DFAST") is a forward-looking exercise under which the Company and its banking subsidiary estimate the impact of a hypothetical severely adverse macroeconomic scenario provided by the Board of Governors of the Federal Reserve System and the Office of the Comptroller of the Currency on its financial condition and regulatory capital ratios over a nine-quarter time horizon. Under the scenario provided by the regulatory agencies, all capital ratio measures remain above minimum regulatory thresholds. Additional information concerning the annual stress test may be found on the Company's Investor Relations page at www.bokf.com under the "Presentations" tab. The results of subsequent capital stress tests may alter the Company's future capital management plans.

Off-Balance Sheet Arrangements

See Note 7 to the Consolidated Financial Statements for a discussion of the Company’s significant off-balance sheet commitments.

Market Risk

Market risk is a broad term for the risk of economic loss due to adverse changes in the fair value of a financial instrument. These changes may be the result of various factors, including interest rates, foreign exchange rates, commodity prices or equity prices. Financial instruments that are subject to market risk can be classified either as held for trading or held for purposes other than trading. Market risk excludes changes in fair value due to the credit of the individual issuers of financial instruments.

BOK Financial is subject to market risk primarily through the effect of changes in interest rates on both its assets held for purposes other than trading and trading assets. The effects of other changes, such as foreign exchange rates, commodity prices or equity prices do not pose significant market risk to BOK Financial. BOK Financial has no material investments in assets that are affected by changes in foreign exchange rates or equity prices. Energy and agricultural product derivative contracts, which are affected by changes in commodity prices, are matched against offsetting contracts as previously discussed.

The Asset/Liability Committee is responsible for managing market risk in accordance with policy guidelines established by the Board of Directors. The Committee monitors projected variation in net interest revenue, net income and economic value of equity due to specified changes in interest rates. The internal policy limit for net interest revenue variation is a maximum decline of 5 percent to an up or down 200 basis point change over twelve months. These guidelines also set maximum levels for short-term borrowings, short-term assets, public funds and brokered deposits and establish minimum levels for unpledged assets, among other things. Compliance with these internal guidelines is reviewed monthly. The Asset/Liabilty Committee is also responsible for monitoring market risk limits for mortgage banking production and mortgage servicing assets inclusive of economic hedge benefits. Each of these desks must limit projected exposure from a 50 basis point change in interest rates.

Interest Rate Risk – Other than Trading

As previously noted in the Net Interest Revenue section of this report, management has implemented strategies to manage the Company’s balance sheet to have relatively limited exposure to changes in interest rates over a twelve-month period. The effectiveness of these strategies in managing the overall interest rate risk is evaluated through the use of an asset/liability model. BOK Financial performs a sensitivity analysis to identify more dynamic interest rate risk exposures, including embedded option positions on net interest revenue, net income and economic value of equity. A simulation model is used to estimate the effect of changes in interest rates on the Company's performance across multiple interest rate scenarios. While the current internal policy limit for net interest revenue variation is a maximum decline of 5 percent due to a 200 basis point change over twelve months, the results of a 200 basis point decrease in interest rates in the current low-rate environment are not meaningful. We report the effect of a 50 basis point decrease in the interim.

The Company’s primary interest rate exposures include the Federal Funds rate, which affects short-term borrowings, and the prime lending rate and LIBOR, which are the basis for much of the variable rate loan pricing. Additionally, residential mortgage rates directly affect the prepayment speeds for residential mortgage-backed securities and mortgage servicing rights. Derivative financial instruments and other financial instruments used for purposes other than trading are included in this simulation. In addition, the impact on the level and composition of DDA and other core deposit balances resulting from a significant increase in short-term market interest rates and the overall interest rate environment is likely to be material. The simulation incorporates assumptions regarding the effects of such changes based on a combination of historical analysis and expected behavior. The impact of planned growth and new business activities is factored into the simulation model. The effects of changes in interest rates on the value of mortgage servicing rights are excluded from Table 28 due to the extreme volatility over such a large rate range and our active risk management approach for that asset. The effects of interest rate changes on the value of mortgage servicing rights are presented in Note 6 to the Consolidated Financial Statements.

The simulations used to manage market risk are based on numerous assumptions regarding the effects of changes in interest rates on the timing and extent of re-pricing characteristics, future cash flows and customer behavior. These assumptions are inherently uncertain and, as a result, the model cannot precisely estimate net interest revenue, net income or economic value of equity or precisely predict the impact of higher or lower interest rates on net interest revenue, net income or economic value of equity. Actual results will differ from simulated results due to timing, magnitude and frequency of interest rate changes, market conditions and management strategies, among other factors.

Table 28 -- Interest Rate Sensitivity
(Dollars in thousands)

	200 bp Increase		50 bp Decrease	
	September 30,		September 30,	
	2016	2015	2016	2015
Anticipated impact over the next twelve months on net interest revenue	$551	$(5,325)	$(25,147)	$(20,047)
	0.07 %	(0.70)%	(3.22)%	(2.62)%

Trading Activities

BOK Financial enters into trading activities both as an intermediary for customers and for its own account. As an intermediary, BOK Financial will take positions in securities, generally residential mortgage-backed securities, government agency securities and municipal bonds. These securities are purchased for resale to customers, which include individuals, corporations, foundations and financial institutions. On a limited basis, BOK Financial may also take trading positions in U.S. Treasury securities, residential mortgage-backed securities and municipal bonds to enhance returns on its securities portfolios. Both of these activities involve interest rate risk. BOK Financial has an insignificant exposure to foreign exchange risk and does not take positions in commodity derivatives.

A variety of methods are used to manage the interest rate risk of trading activities. These methods include daily marking of all positions to market value, independent verification of inventory pricing, and position limits for each trading activity. Economic hedges in either the futures, over the counter derivatives or cash markets may be used to reduce the risk associated with some trading programs.

Management uses a Value at Risk ("VaR") methodology to measure market risk due to changes in interest rates inherent in its trading activities. VaR is calculated based upon historical simulations over the past five years using a variance/covariance matrix of interest rate changes, a 10 business day holding period and a 99 percent confidence interval. It represents an amount of market loss that is likely to be exceeded in only one out of every 100 two-week periods. Trading positions are managed within guidelines approved by the Board of Directors. These guidelines limit the VaR to $7.3 million. There were no instances of VaR being exceeded during the nine months ended September 30, 2016 and 2015. At September 30, 2016, there were no trading positions for the purposes of enhancing returns on the Company's securities portfolio.

The average, high and low VaR amounts for the three and nine months ended September 30, 2016 and September 30, 2015 are as follows in Table 29.

Table 29 -- Trading Value at Risk (VaR)
(In thousands)

	Three Months Ended Sept. 30,		Nine Months Ended September 30,	
	2016	2015	2016	2015
Average	$2,551	$1,799	$2,280	$1,635
High	4,321	2,680	4,321	2,680
Low	1,152	1,048	775	782

The Company expanded its trading activities during the third quarter through the initial operation of a team that deals in specified pools of mortgage loans that have been placed into U.S. government agency issued securities and related derivative instruments. These instruments are generally customized to meet requirements of specific customers. This team also serves as a market maker that provides liquidity as both a buyer and seller of to-be-announced derivative instruments. Each of these expanded activities must fall within the VaR guidelines mentioned above.

The Company also bears interest rate risk by originating residential mortgages held for sale (RMHFS). A variety of methods are used to manage the interest rate risk of mortgage origination activities. These methods include daily marking of all positions to market value, independent verification of inventory pricing, and revenue sensitivity limits. Interest rate risk from RMHFS is mitigated through forward sale contracts.

Management uses a pre-tax income sensitivity methodology to measure market risk from RMHFS. Pre-tax income sensitivity is calculated using a + / - 50 basis point change in interest rates, a 30 day average fall out rate, and a projected fall out-rate that is statistically modeled and recalibrated using such factors as loan product type, seasonality, region, originator, channel, rate lock terms, rate change scenario and various borrower characteristics. The Company monitors the effectiveness of this model through back-testing, updating the data and regular validations. Trading positions are managed within guidelines approved by the Board of Directors. These guidelines limit the pre-tax income sensitivity to $7 million. There were no instances of pre-tax income sensitivity exceeding the $7 million limit during the three and nine months ended September 30, 2016 and 2015.
The average, high and low pre-tax income sensitivity amounts for the three and nine months ended September 30, 2016 and September 30, 2015 are as follows.

Table 30 -- RMHFS Interest Rate Sensitivity
(In thousands)

	Three Months Ended Sept. 30,		Nine Months Ended September 30,	
	2016	2015	2016	2015
Average	$827	$2,814	$2,179	$2,615
High	2,563	5,422	6,858	6,590
Low	17	86	12	68

Controls and Procedures

As required by Rule 13a-15(b), BOK Financial’s management, including the Chief Executive Officer and Chief Financial Officer, conducted an evaluation as of the end of the period covered by their report, of the effectiveness of the Company’s disclosure controls and procedures as defined in Exchange Act Rule 13a-15(e). Based on that evaluation, the Chief Executive Officer and Chief Financial Officer concluded that the disclosure controls and procedures were effective as of the end of the period covered by this report. As required by Rule 13a-15(d), BOK

Financial's management, including the Chief Executive Officer and Chief Financial Officer, also conducted an evaluation of the Company's internal controls over financial reporting to determine whether any changes occurred during the quarter covered by this report that have materially affected, or are reasonably likely to materially affect, the Company's internal controls over financial reporting. Based on that evaluation, there has been no such change during the quarter covered by this report.

Forward-Looking Statements

This report contains forward-looking statements that are based on management’s beliefs, assumptions, current expectations, estimates, and projections about BOK Financial, the financial services industry and the economy in general. Words such as “anticipates,” “believes,” “estimates,” “expects,” “forecasts,” “plans,” “projects,” “will,” “intends,” var such words and similar expressions are intended to identify such forward-looking statements. Management judgments relating to and discussion of the provision and allowance for credit losses, allowance for uncertain tax positions, accruals for loss contingencies and valuation of mortgage servicing rights involve judgments as to expected events and are inherently forward-looking statements. Assessments that BOK Financial’s acquisitions and other growth endeavors will be profitable are necessary statements of belief as to the outcome of future events, based in part on information provided by others that BOK Financial has not independently verified. These statements are not guarantees of future performance and involve certain risks, uncertainties and assumptions that are difficult to predict with regard to timing, extent, likelihood and degree of occurrence. Therefore, actual results and outcomes may materially differ from what is expressed, implied, or forecasted in such forward-looking statements. Internal and external factors that might cause such a difference include, but are not limited to changes in commodity prices, interest rates and interest rate relationships, demand for products and services, the degree of competition by traditional and nontraditional competitors, changes in banking regulations, tax laws, prices, levies and assessments, the impact of technological advances, and trends in customer behavior as well as their ability to repay loans. BOK Financial and its affiliates undertake no obligation to update, amend or clarify forward-looking statements, whether as a result of new information, future events, or otherwise.

Consolidated Statements of Earnings (Unaudited)

(In thousands, except share and per share data)	Three Months Ended		Nine Months Ended	
	September 30,		September 30,	
Interest revenue	2016	2015	2016	2015
Loans	$146,840	$132,985	$427,512	$392,878
Residential mortgage loans held for sale	3,615	3,793	9,823	10,634
Trading securities	2,996	669	4,136	1,618
Taxable securities	3,000	3,211	9,244	9,788
Tax-exempt securities	1,132	1,274	3,492	3,933
Total investment securities	4,132	4,485	12,736	13,721
Taxable securities	42,513	43,473	130,790	128,933
Tax-exempt securities	529	535	1,591	1,718
Total available for sale securities	43,042	44,008	132,381	130,651
Fair value option securities	1,531	2,480	6,182	6,803
Restricted equity securities	4,510	3,802	12,684	9,627
Interest-bearing cash and cash equivalents	2,651	1,442	7,926	4,114
Total interest revenue	209,317	193,664	613,380	570,046
Interest expense				
Deposits	9,812	10,731	30,351	34,102
Borrowed funds	9,191	3,701	25,943	9,395
Subordinated debentures	2,468	596	4,056	4,456
Total interest expense	21,471			