



Central Bank:

Utilizing Technology in the Transformation  
of Superior Customer Service

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# VIDEO PRODUCTION

# Central Bank Locations



# The Central Bank Mission

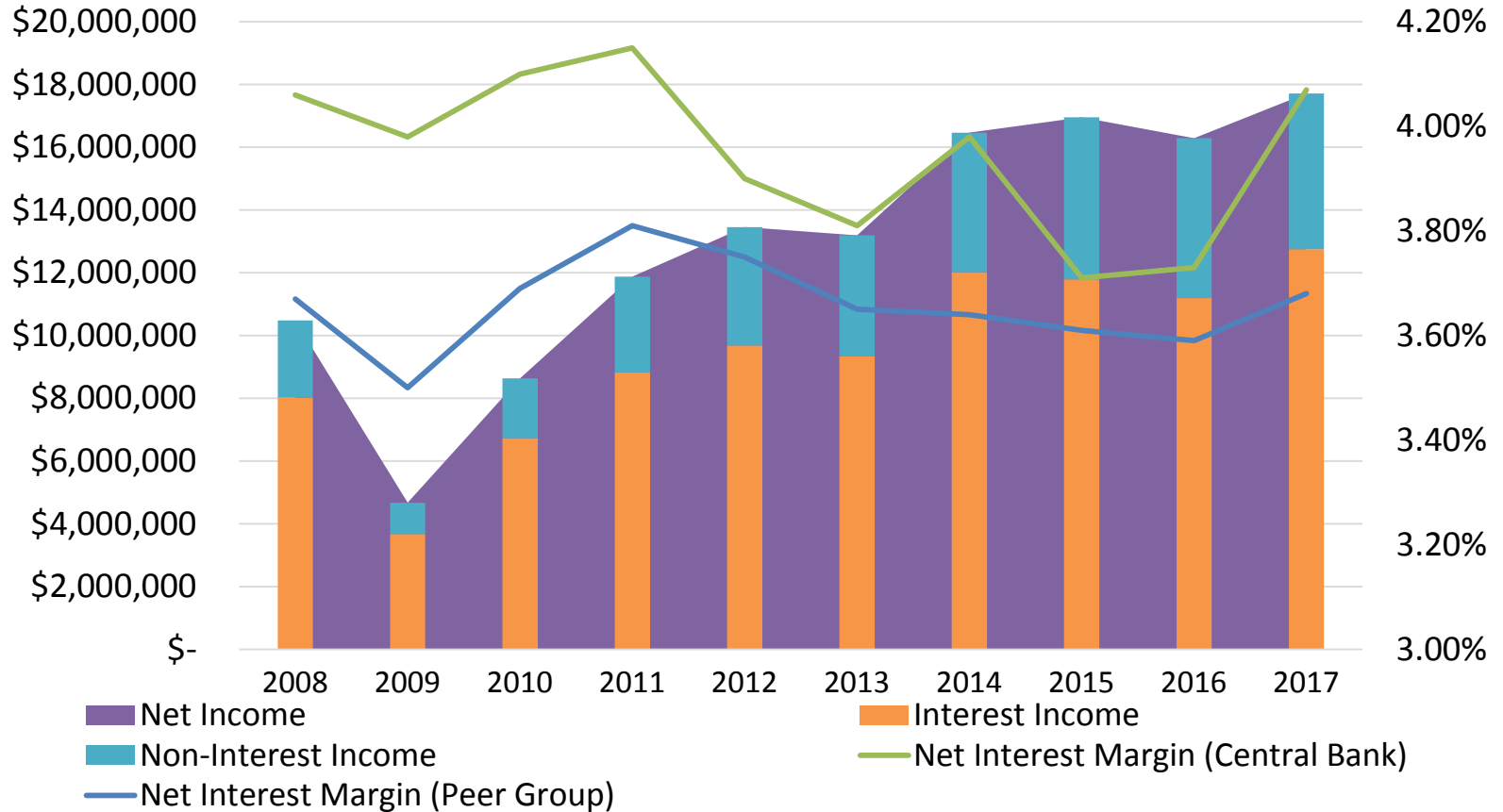
The mission of Central Bancshares is to become Kentucky's leading, high-performing, community banking company by empowering staff to deliver consistently superior service and value to customers, shareholders and communities. We will be successful because Central Bankers are our greatest resource and our most sustainable advantage.



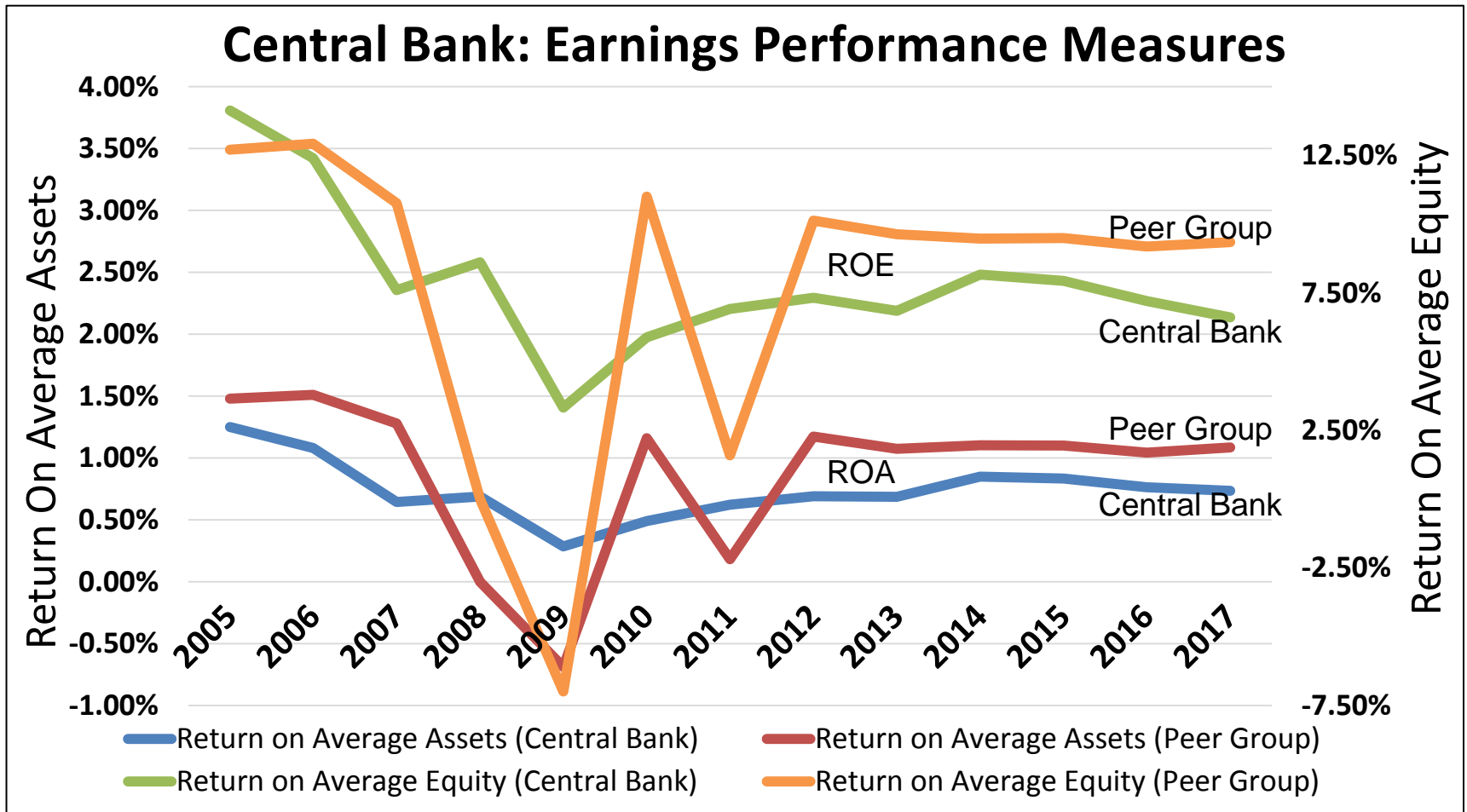
# FINANCIAL ANALYSIS

# Financial Analysis Highlights

## Central Bank Net Interest Margin to Peer Group Average



# Financial Analysis Highlights



# Impact of Investment in Facility (Including Technology) On Bank Profitability

*Bank profitability*<sub>*i,t*</sub> =

$$\begin{aligned} & \alpha_{i,t} + \beta_1 \textit{Profitability}_{i,t-1} + \beta_2 \textit{No\_Offices}_{i,t} + \beta_3 \textit{Total\_Assets}_{i,t} \\ & + \beta_4 \textit{expenditures\_premises}_{i,t} + \beta_5 \textit{expenditures\_premises}_{i,t-1} \\ & + \beta_6 \textit{expenditures\_premises}_{i,t-2} + \varepsilon_{i,t} \end{aligned}$$

where

$\alpha_{i,t}$  = constant

$\textit{Profitability}_{i,t-1}$  = lag value of ROA

$\textit{No\_Offices}_{i,t}$  = number of offices

$\textit{Total\_Assets}_{i,t}$  = total assets

$\textit{expenditures\_premises}_{i,t}$  = facilities expenditures

$\textit{expenditures\_premises}_{i,t-1}$  = 1-year lag value of facilities expenditures

$\textit{expenditures\_premises}_{i,t-2}$  = 2-year lag value of facilities expenditures



# Impact of Investment in Facility (Including Technology) On Bank Profitability

**Table 3: The impact of investment in facility (including technology) on bank profitability.**

We present p-values in parentheses. \*\*\*, \*\*, \* indicate significance at a 1%, 5%, and 10%, respectively.

Variable	(2)
<i>Constant</i>	0.0047*** (0.000)
<i>Profitability<sub>t-1</sub></i>	0.5302*** (0.000)
<i>No. of Offices</i>	-0.0001*** (0.003)
<i>Total_assets</i>	-0.0000 (0.598)
<i>Facility_Expenditures</i>	-0.0003* (0.097)
<i>Facility_Expenditures<sub>t-1</sub></i>	0.0001 (0.755)
<i>Facility_Expenditures<sub>t-2</sub></i>	0.0005* (0.053)
<i>No. of Observation</i>	1,443
<i>Adjusted R<sup>2</sup></i>	0.52

# COMMUNITY AND TECHNOLOGY

# Changing Customer Expectations

- Customers expect innovation & efficiency
- New technology offerings foster customer loyalty and acquisition
- Young customers seek the latest technologies

# E-Banking: Transforming the Industry

- Customer Interaction with Bank
    - Physical Bank Branch: 1-2 times per year
    - Mobile Device: 250-350 times per year
  - Influenced by growth of smartphone industry
    - 2011 Smartphone ownership: 35%
    - 2017 Smartphone ownership: 77%
    - 2017 Smartphone ownership by sector: 90%\*
- \*Given a college education or over \$75,000 income

# E-Banking: Transforming Central Bank

- Central Bank became a leader among community banks in technology
- Customer loss rate:
  - Central Bank: 12% per year
  - National Bank Average: 25% per year
- Customer Retention:
  - Central Bank: 13 years
  - National Bank Average: 6 years

# E-Banking: Transforming Central Bank

- Customer acquisition through technology
  - Social Media
  - EVERFI's Digital Learning for Teenagers
- New student accounts increased by 50% in the first 12 months
- Young professionals ages 25-34 is their fastest growing customer segment

# MANAGEMENT & TECHNOLOGY

# Management & Technology

## Short-term Goals

- Employee single sign-on with two-factor authentication
- Increase adoption rate of online banking services
  - TAM Model (Chiou & Shen 2012)
- Converting current P2P system to Zelle





# Management & Technology

## Long-term Goals

- Early adopter of new technology
- Customer single sign-on
- Increase customer retention



# THIRD PARTY VENDORS

# Using Third-Party Vendors to Solve Problems

- Most banks cannot build a system
- Necessary to fulfill growing business needs
- Used in a variety of supporting activities performed by banking institutions
  - Core system
  - Online banking
  - Mobile banking

# Challenges Related to Third-Party Vendor Management

- Insufficient oversight by the institution's board of directors
- Lack of formal documented outsourcing policy
- Vague contract terms and requirements that lack specificity on a third-party vendor
- Third-party vendor performance review conducted by inexperienced institution personnel
- Inadequate disaster recovery tests between a third-party vendor and the institution; as well as tests that do not address a possible cybersecurity event
- Information security and cybersecurity procedures of the third-party vendor that are not adequately reviewed and assessed by the institution
- Inappropriate risk rating by the institution of its critical third-party vendors (DaSilva, 2017)

# Addressing Challenges Related to Third-Party Vendor Management

- Vendor review policies and procedures
- Central Bank uses third-party vendors for its regular penetration/intrusion testing
- Bank participation in third-party vendor advisory boards
  - Network with other clients
  - Advocate collectively for vendors to correct issues

# Emerging Third-Party Vendor Trends That Could Expand Business

- Artificial Intelligence
  - Expected to provide a variety of applications
  - Lower costs
  - Increase efficiencies
  - Enhance user experiences needed to attract and retain customers
- Digital Lending
  - 22% of FI's are interested in loan origination software (Pike, 2018)

# RECOMMENDATIONS

# Recommendations

- Form university partnerships
- Upgrade technological infrastructure
- Utilize loan origination software
- Implement strict vendor review policies, shorten contract length, participate strategically on vendor advisory boards
- Explore possibility of an industry incentive to bank core vendors for compatibility updates





**Thank You**

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