

Oil and the **Economy:**

Adapting to a New Reality

November 18, 2016



A Joint Conference
of the Federal Reserve
Banks of Dallas and
Kansas City

Houston, Texas

How do Strains in the Energy Sector Affect the Financial System?



Trends expected in 2016

- **Cash Flow**
 - Cash flow is tight. Leverage Ratios increasing, covenant defaults.
- **Hedges**
 - Price protection rolls off.
 - Majority of market is under hedged in 2016 & 2017.
- **Capital Expenditures**
 - Capex cuts impact reserve evaluations and borrowing bases.
 - Capital constraints lead to asset sales / joint ventures.
- **Capital Markets**
 - Limited.
- **Regulatory Oversight of Banks**
 - Guidance provided / Downgrade of credit quality / Bank financials impacted.

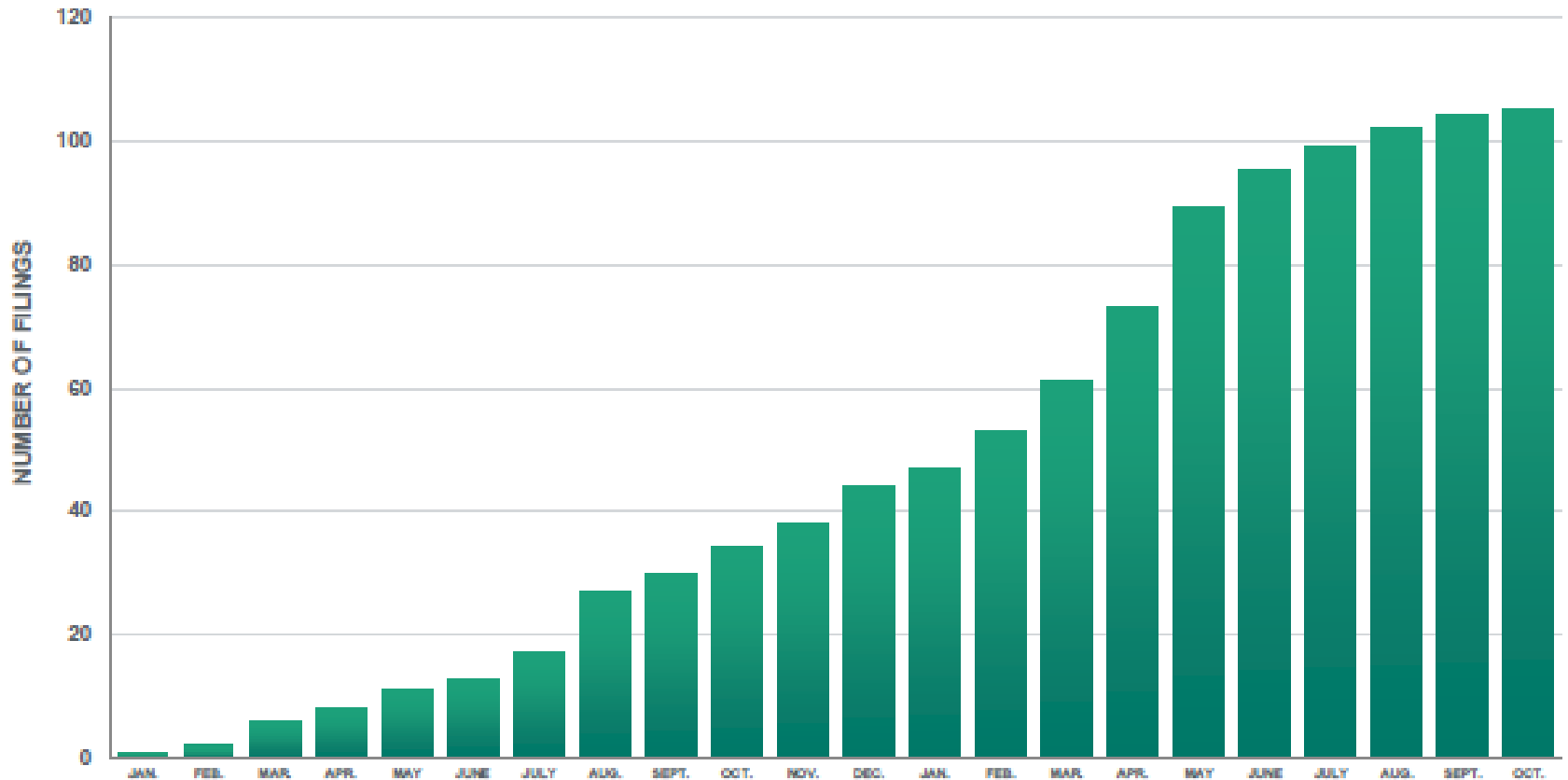


Industry Stress:

- Bankruptcies
- Job Losses
- Spillover
- Loss of State Tax Revenues



HAYNES AND BOONE OIL PATCH BANKRUPTCY MONITOR

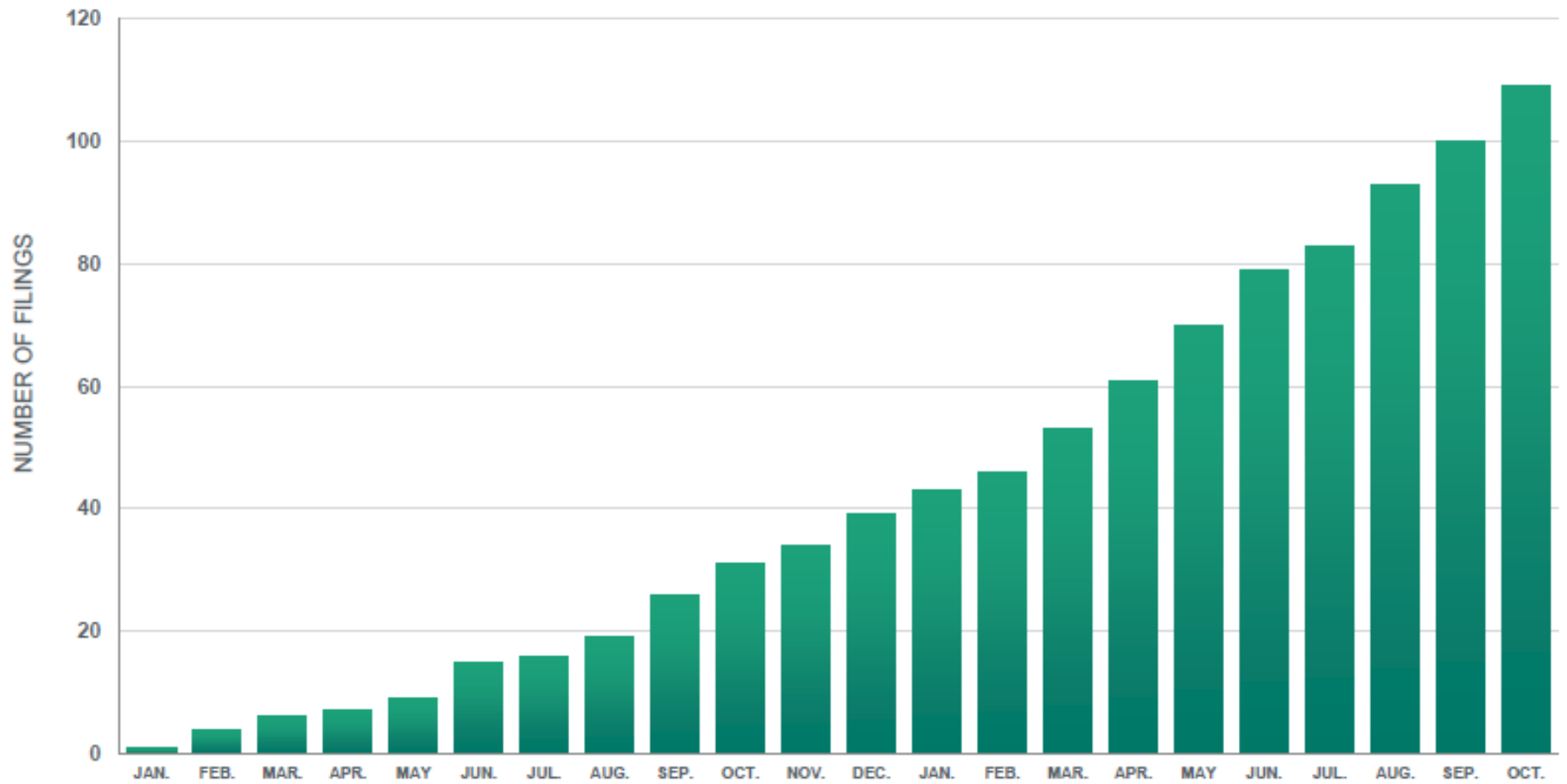


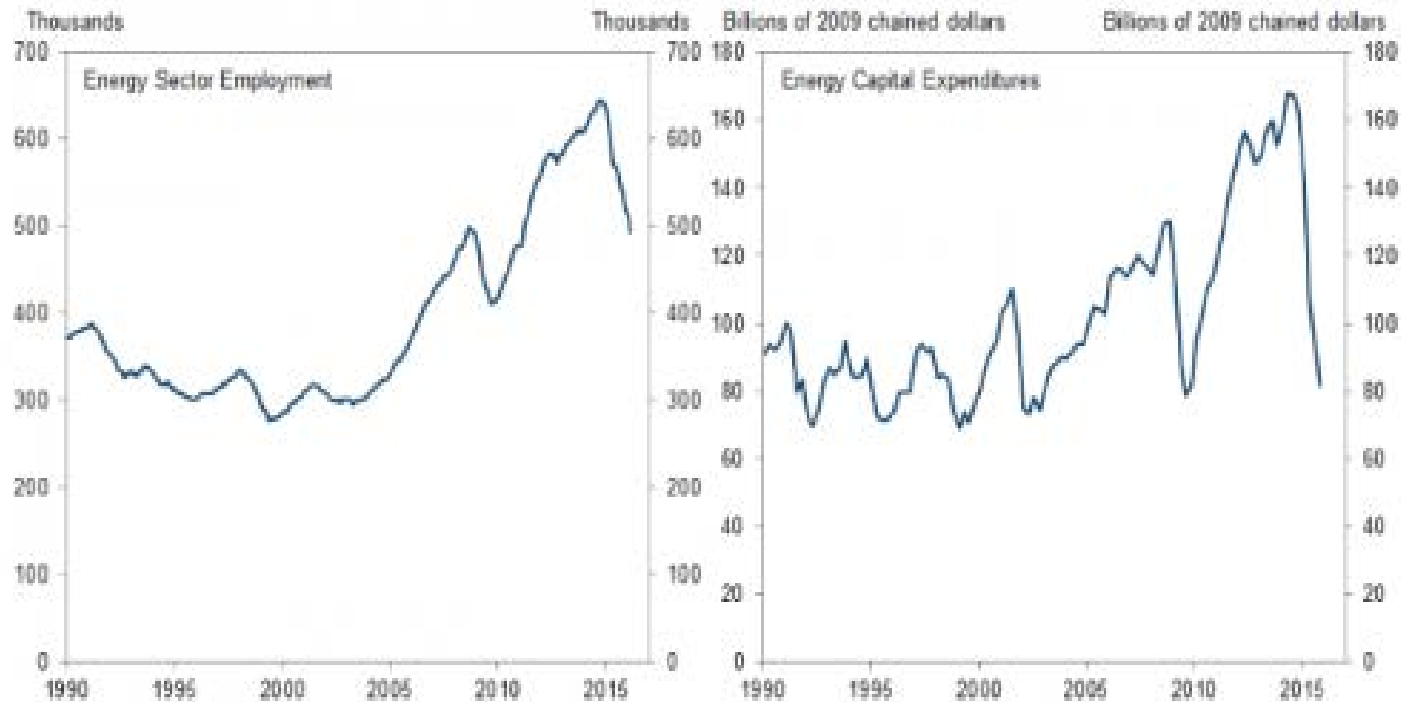
*See pages 5-8 for a complete list of bankruptcies.
(As of October 19, 2016)*

As of October 19, 2016, 61 producers have filed bankruptcy so far this year, representing approximately \$50.6 billion in cumulative secured and unsecured debt. There has been a slow and steady increase in oil prices, which is being monitored closely as OPEC's meeting on November 30th approaches. During the month of September, 2 E&P companies filed bankruptcy with cumulative debt of approximately \$84.6 million. So far, in the month of October, 1 E&P company filed for bankruptcy with cumulative debt of \$83.7 million. Texas bankruptcy courts remain at the top of the venue leaderboard, both in terms of the number of E&P filings and cumulative debt. Forty-six E&P bankruptcies have been filed in Texas, representing approximately \$29.7 billion in cumulative secured and unsecured debt.



HAYNES AND BOONE OILFIELD SERVICES BANKRUPTCY TRACKER





Despite increases in crude oil prices since the start of the year, employment in oil and natural gas extraction and support activities continued declining from levels reached in the fall of 2014, just before the onset of falling oil prices. The total rig count (including both oil-directed and natural gas-directed rigs) has declined even more sharply, from nearly 1,800 rigs in the fall of 2014 to a weekly low of 404 rigs in May 2016. Employment in oil and natural gas production reached a high of 538,000 jobs in October 2014. Since then, oil and natural gas production employment declined 26%, a loss of more than 142,000 jobs through May 2016. The total decrease in production jobs is nearly three times the 51,000 jobs lost over a 13-month period during the 2008–09 recession. The Federal Reserve Board of Dallas issued a report in September that indicated that August was the first month of net job gains in the O&G sector in Texas since December 2014 (Petroscout).



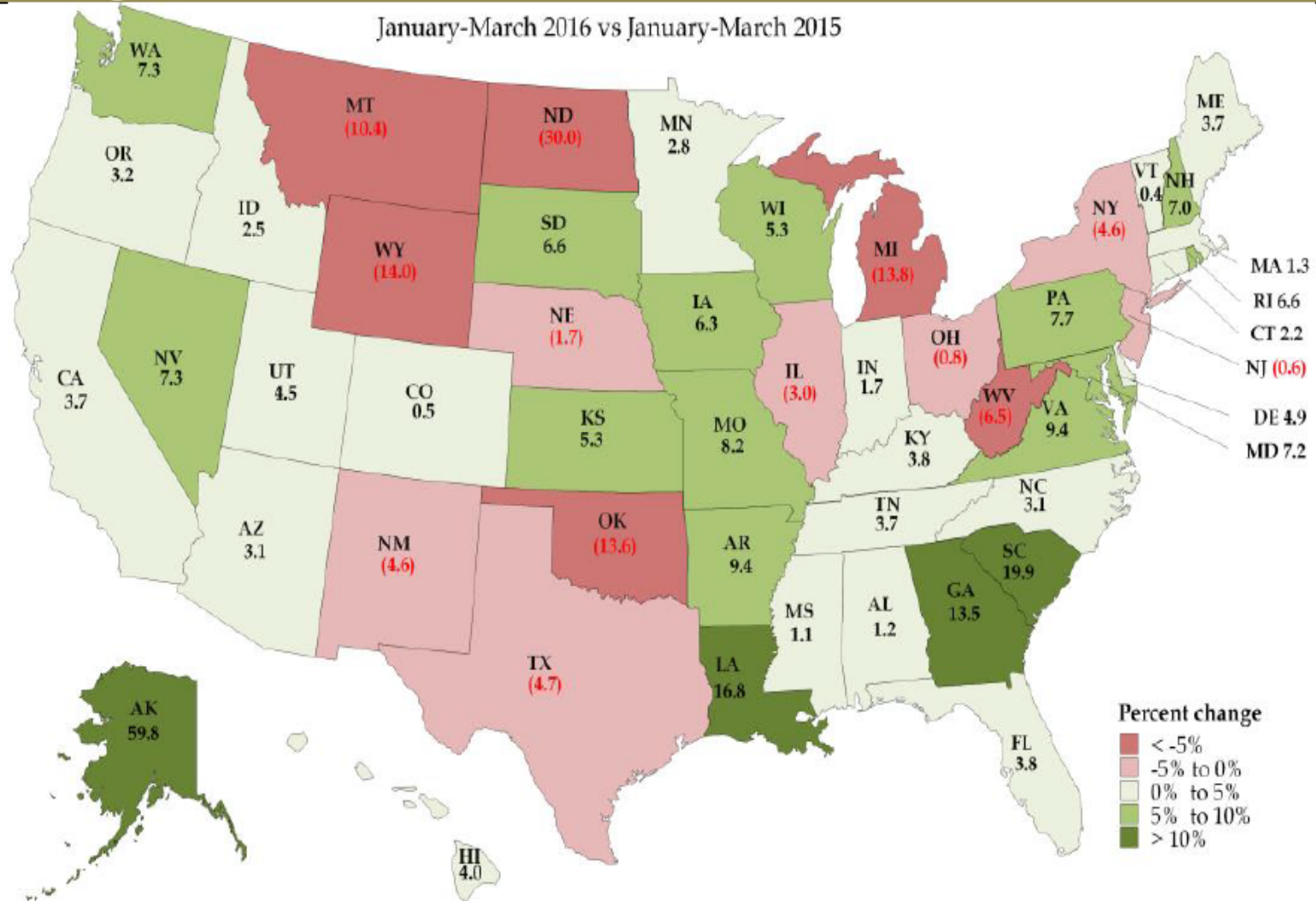
What are the Spillovers to Other Sectors of the Economy?

- We have not seen significant spillover impact to the other sectors of the economy. However, as the downturn continues, this could change.
- Consumers in the primary energy regions are cutting back on major purchases and this is clearly reflected in car sales. Home prices have not yet been impacted, but the sales cycle has lengthened.
- Businesses that have a significant portion of their customers related to energy have experienced a slowdown in performance, but are not materially stressed to date.
- Commercial Real Estate is holding up well, although there is some softness in the multi family and office markets, particularly in Houston.
- We are starting to see negative loan growth in the manufacturing sector in the third quarter for our borrowers.
- Employment growth in Texas had slowed as Oklahoma has been flat to slightly down.
- Overall, the regional economy is holding up reasonably well, but could face additional stress if the downturn were to continue.



Figure 1. Growth in State Tax Collections in the First Quarter of 2016

January-March 2016 vs January-March 2015



Source: U.S. Census Bureau (tax revenue).



Effect on High Yield Debt Markets and Private Equity

- Defaults / Conversions / Discounts
- Lowered Credit Ratings ➡ Higher Costs to do Business
- High Yield Closed Until Recently
- Private Equity Flowed into the Void



- U.S. high-yield bonds in default have reached the highest levels in at least six years as more energy companies buckled under pressure from stagnant oil prices.
- Speculative-grade U.S. defaults spiked to 5.1 percent of the total outstanding in the second quarter from 4.4 percent in the first, according to a July 12 report from Moody's Investors Service.
- The global high-yield default rate could finish the year at 4.9 percent, with the U.S. as much as 6.4 percent, Moody's reports.
- Missed payments on high-yield or speculative bonds are already near levels that prevailed in 2009 and 2010, according to analysts at Moody's and Fitch Ratings, who are forecasting defaults will get worse before they get better next year.
- At \$50.2 billion, U.S. high-yield defaults have already surpassed the \$48.3 billion total for all of 2015, and they're on course to reach as much as \$90 billion by year-end, according to a separate July 12 report from Fitch.



Many BOK Financial customers have been diligently negotiating with bondholders to prepay bonds at a discount or seek to convert bonds to common or preferred equity as they attempt to reduce debt and leverage.



Haynes and Boone said in September that the following financial restructurings are keeping E&P companies operations ongoing:

- Converting unsecured loans from non-bank lenders to second-tier secured debt.
- Selling undeveloped assets to meet reserve-based/production lending norms.
- Working with bankers to increase secured debt to earnings before interest, tax and depreciation (EBITDA) and interest coverage ratios.



Many of the larger E&P companies have seen their credit ratings decreased – some below investment grade. This can lead to increased costs for senior debt borrowings. (Pricing grids based on credit ratings.)



Private Equity

- There is about \$971.4 billion of dry powder amassed to make oil and gas private equity investments. (Reported by Ernst & Young)
- Virtually all new energy loan requests have been for acquisitions for private equity backed entities.
- These new loan structures for senior debt have required a greater percentage of equity (up to 70%) to debt. (To keep initial leverage to a level acceptable to banks)



Effect on Banks:

- Regulatory Oversight
- OCC Handbook – March 2016
- Shared National Credit Reviews and Downgrades
- Increased Allowance for Loan Losses and Reserve
- Increased FDIC Costs
- Nonaccruals Up / Bank Earnings Slowed
- Banks Reducing Exposure
- Borrowing Bases Reduced – Restricts Capital Available to Industry



Bank Regulatory Oversight

- **Two Recent Data Points**
 - Shared National Credit Exam Results – March 2016 & October 2016
 - OCC Oil and Gas Lending Guidelines – March 2016
- **Focus on Repayment Capacity**
 - Repayment of 1st Lien
 - Capacity to Repay All Debt – Secured vs. Unsecured
- **Focus on Loan Covenants**
 - Leverage Ratio Key Focus – Total Debt/EBITDAX
- **Loans Downgraded to Criticized & Classified**
 - Banks are required to increase the loan loss reserve, an impact to earnings.
 - Some banks are preserving and/or rationalizing commitment to Energy.
 - Can have loss of flexibility in working with a customer.
 - Could result in reduced appetite for new deals.



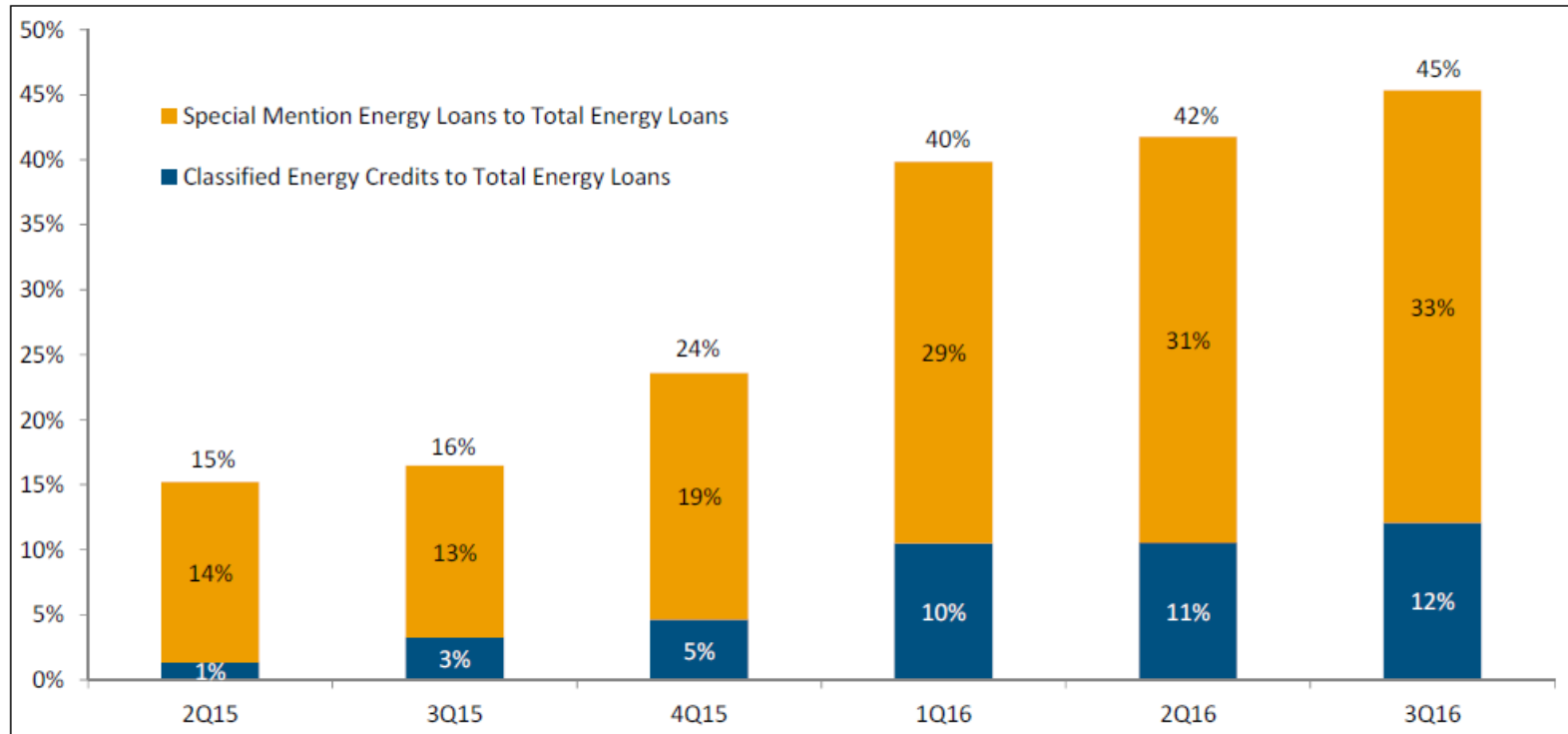
Today's Banking Environment

- **Borrowing Base**
 - Declining, in most cases.
 - Less likely to stretch.
- **Increased Pricing**
 - Fees or increased pricing for waivers and amendments.
 - Bank market seeing increased interest rates and fees changed on new deals
 - Ancillary business is important.
- **Tighter Loan Covenants / Structure**
 - Financial Ratios, especially leverage ratios.
 - Hedging / Distributions / Cash Hoarding Limits.
- **Capitalization**
 - More equity needed to fund development and acquisitions.

Structures tightening, borrowing bases decreasing, interest rate margins widening



Criticized / Classified Energy Trends (as a percent of total energy loans)



After considerable credit deterioration in 1Q16, energy credit trends have exhibited stabilization in 2Q16 and 3Q16.

Note: We define "classified" energy loan mix as classified non-performing and classified performing, and "criticized" energy loan mix as classified non-performing, classified performing, watch list, and special mention loans.

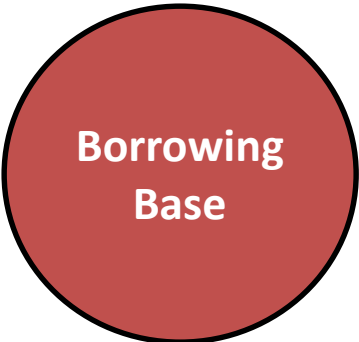
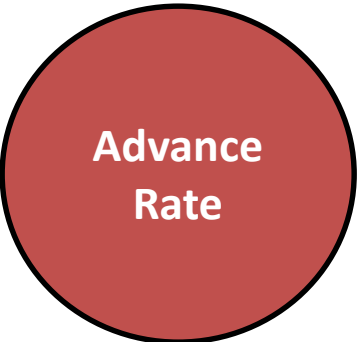
Stephens

Capitalize on Independence™

Source: Company Filings, SNL Financial, FactSet Research Systems, and Stephens Inc.



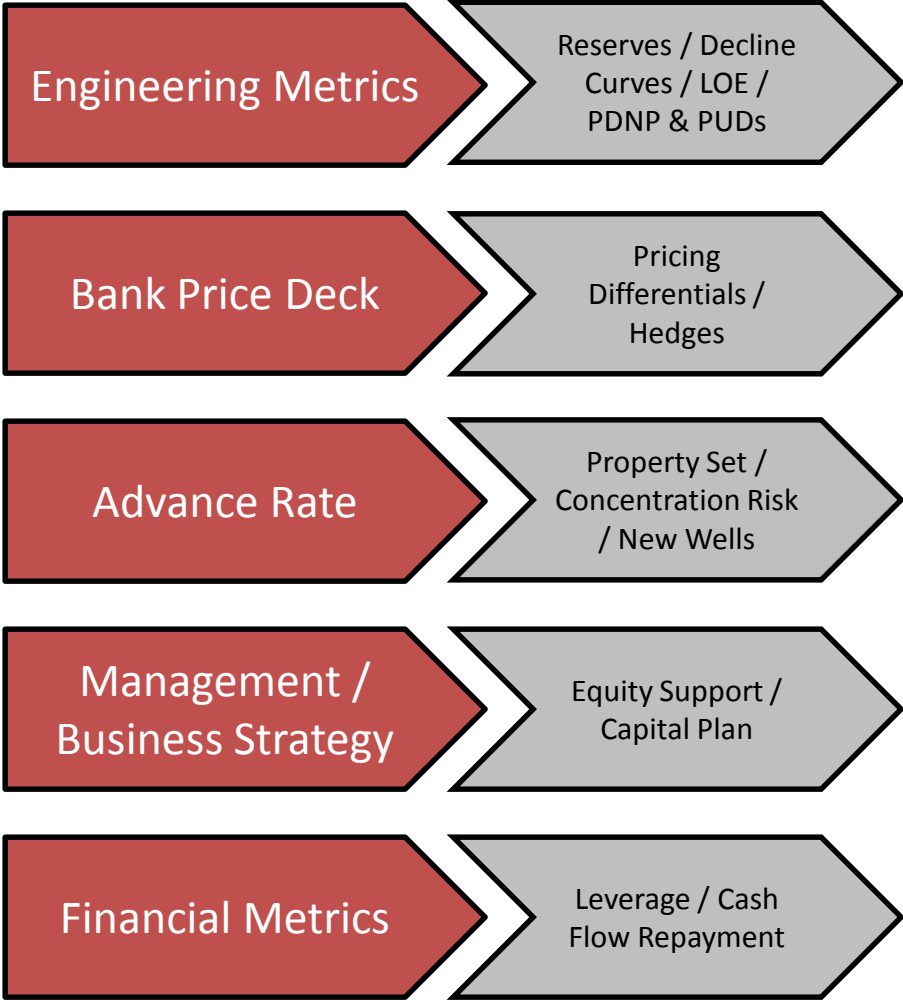
Borrowing Base – Art or Science?



VS



Art or Science? A lot of both



THE BOX =
Borrowing Base



Effect on Companies:

- Reduced access to capital
- Borrowing bases lowered
- Equity markets and high yield markets were temporarily closed
- Cash flow used to pay down debt – not grow
- Asset sales to reduce debt and leverage
- Increased hedging to reduce downside risk as prices have recovered
- Defaults on bank loan covenants and high yield payments
- To date, we have seen our bank customers actively find ways to de lever themselves in a manner that has not increased the risk of loss in our portfolio.



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