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Do Falling Oil Prices Affect Texas' Tax Revenue and Municipal Bonds?

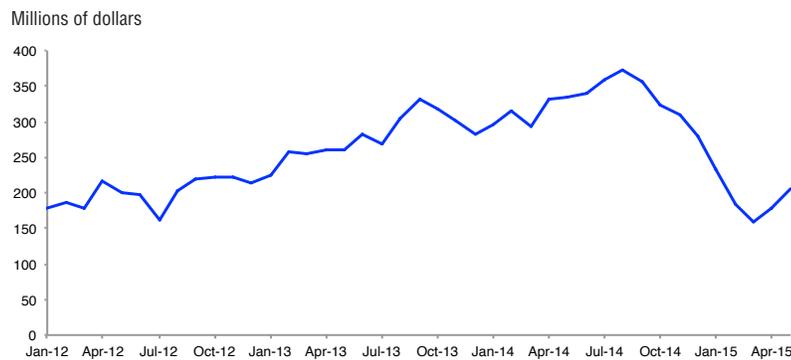
by Rebin Kawani

The recent decline in oil prices has cost Texas millions of dollars in tax revenue. Oil and gas tax revenue accounts for an important portion of total tax revenue in Texas, the nation's top oil-producing state. In addition to losses in the state's tax revenue, several of the oil-producing counties (OPC) may face difficulty balancing their books amid an unexpected slowdown in economic activity along with outstanding debt and reliance on taxes of oil and gas production.

Texas Oil and Gas Tax Revenue Declines

Texas imposes severance taxes, which include oil production and regulation (OPR) taxes, based on market value at the point of production.¹ According to the Texas Comptroller of Public Accounts, rising production and higher prices produced all-time record-high oil tax revenues in 2014. OPR tax revenue accounted for 7.6 percent of Texas' total tax revenue in 2014. The total OPR tax revenue was \$3.87 billion, a 30 percent increase from fiscal year 2013. However, due to the fall in energy prices, revenue began falling in late 2014 and continued to fall through March 2015 (Chart 1). OPR tax revenue was \$158 million in March 2015, the lowest in two years. But after seven consecutive months of decline, OPR tax revenue grew again, with April and May seeing monthly increases of 12 and 17 percent, respectively. Through May, year-to-date OPR tax revenue remains below the record levels reported in 2014, and also below 2013 levels, but 3 percent above 2012. Oil price forecasts suggest tax revenue will remain relatively low for the near future.

Chart 1 Texas Oil Production and Regulation Net Tax Revenue Increases Again



SOURCE: www.texastransparency.org.

Local Government Bond Ratings Being Reassessed

Despite the drop in the state severance tax revenues, the diversity of Texas' economy and sound financial profile will help protect the state from fluctuations in energy.² But in the case of municipal bonds, it is difficult to predict the effect of falling energy prices because of the diversity of municipal bond issuers, particularly the structural details of their bond issuances.³ Still, municipal bonds' longer-term maturity and higher ratings leave them less vulnerable to energy price volatility than energy or other bonds.

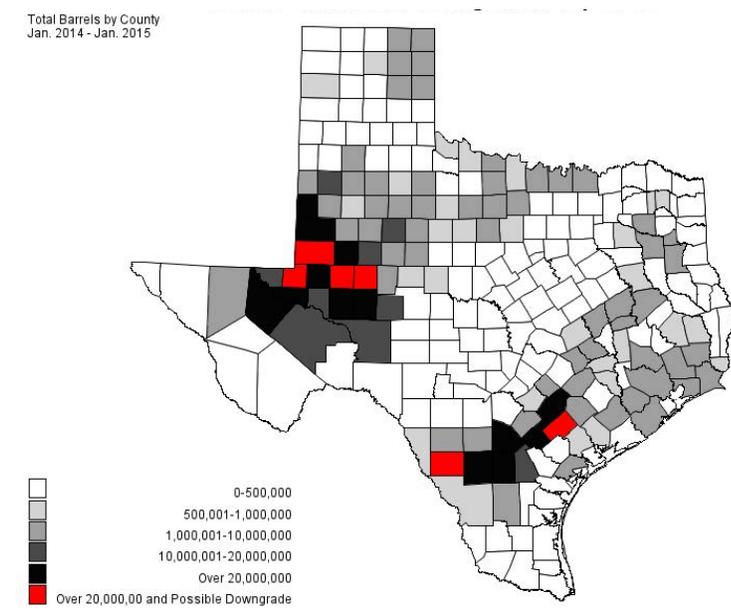
Most of the negative effect of oil price decline is expected to impact the economies of OPCs located in the Permian Basin in West Texas and Eagle Ford in South Texas.⁴ Rating agencies' assessment of municipal bonds belonging to these OPCs indicates the impact of falling oil prices may become more apparent in the second half of the year as the decisions from energy companies to scale back their capital trickle down to the OPCs. The

decline in sales and use taxes levied by local governments will impact revenues sooner, while the impact of property tax revenue losses may not show up until the 2016 tax year or later. This potential impact has prompted rating agencies to reassess their outlook for several of the OPCs, listing a number of the OPCs and their local governments under review for possible downgrade.⁵ The list included 10 Texas local government issuers within seven OPCs holding approximately \$800 million of debt (*Chart 2*). These issuers are located in the regions of Texas responsible for the majority of the state's crude oil production.

CALENDAR OF EVENTS

- July 20**
Southwest CUNA Management School—TCU
Fort Worth, Texas
- July 29**
Economic Roundtable
Shreveport, Louisiana
- Economic Roundtable**
Choudrant, Louisiana
- July 30**
Economic Roundtable
Fort Worth, Texas
- August 11**
Economic Roundtable
Waco, Texas
- August 28**
Economic Roundtable
Burnet, Texas

Chart 2 Issuers on Watch for Downgrade in Top OPCs



SOURCES: Data obtained from the Texas Railroad Commission's data query feature; map produced by SAS.

According to the major rating agencies, a combination of economic and financial factors makes the ratings of these local governments particularly vulnerable to an extended period of low oil prices. These factors include the change in property values due to loss of economic activity and total debt outstanding issued based on the assumption of high revenues related to the recent period of high energy prices. In addition, the tax base concentration in oil and gas mineral values along with the employment concentration in the oil sector could reduce revenues even further. A budgetary reliance on local property taxes and economically sensitive sales taxes and lack of financial reserves available to buffer against a downturn in revenues may also have adverse effects on issuers' ratings.

The potential downgrade watch list could provide some guidance about the regions of the state susceptible to a continued oil price slump. It is important to note that despite the warning of a potential downgrade, these bonds do hold a Moody's underlying stand-alone investment grade of A1 or better, so even a downgrade would mean the county is unlikely to default. However, a downgrade of these bonds could make it more difficult and more expensive for the counties to attract funding in the future.

Meanwhile, low-investment grade bonds have seen their yields fluctuate with changes in the price of oil. For example, Karnes County in Texas—one of the top 10 OPCs in the U.S.—serves as an example of the possible ramifications of the drop in energy prices. The county has seen increases in yields on one of its outstanding revenue bonds despite no change in its rating (*Chart 3*). The bond carries an investment grade rating of BBB, only two notches above speculative grade, and its value has fallen since the decline of oil prices.

Low Energy Prices Good for Transportation-Linked Bonds

Municipal bonds backed by revenues from toll roads and airports could potentially benefit from falling oil prices if lower fuel costs spur increased usage of transportation infrastructure. The Deutsche X-Trackers Municipal Infrastructure Revenue Fund (RVNU) tracks municipal infrastructure revenue bonds. Transportation-linked

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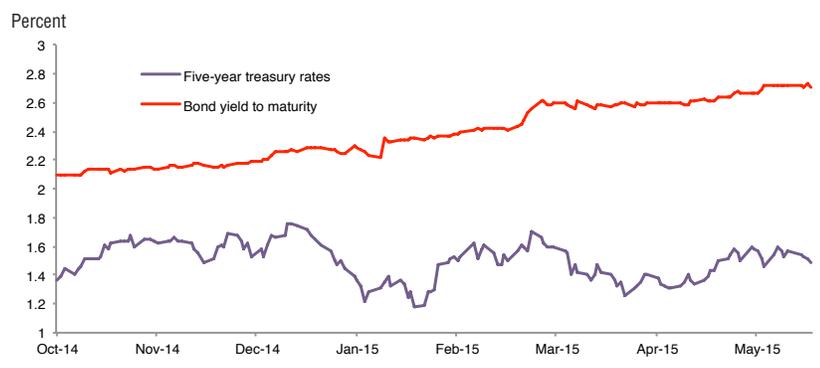
ABOUT FINANCIAL INSIGHTS AND FIRM

Financial Insights is published periodically by FIRM – Financial Institution Relationship Management – to share timely economic topics of interest to financial institutions.

FIRM was organized in 2007 by the Federal Reserve Bank of Dallas as an outreach function to maintain mutually beneficial relationships with all financial institutions throughout the Eleventh Federal Reserve District. FIRM's primary purpose is to improve information sharing with district financial institutions so that the Dallas Fed is better able to accomplish its mission. FIRM also maintains the Dallas Fed's institutional knowledge of payments, engaging with the industry to understand market dynamics and advances in payment processing.

FIRM outreach includes hosting economic roundtable briefings, moderating CEO forums hosted by Dallas Fed senior management, leading the Dallas Fed's Community Depository Institutions Advisory Council (CDIAC) and Corporate Payments Council (CPC), as well as creating relevant webcast presentations and this publication. In addition, the group supports its constituents by remaining active with financial trade associations and through individual meetings with financial institutions.

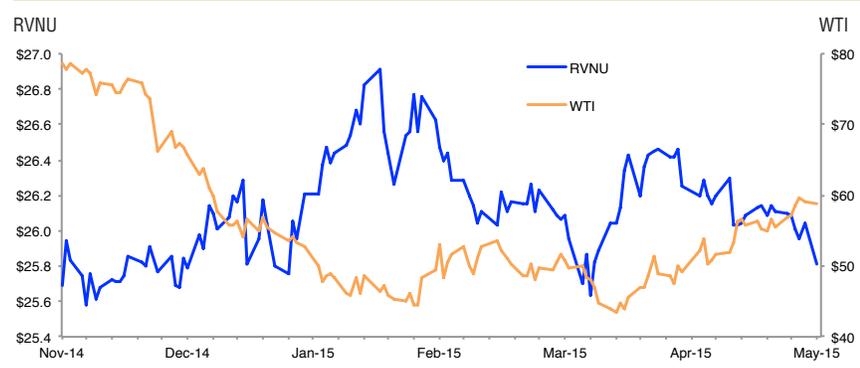
Chart 3 Karnes County Bond Yield Increases



NOTE: This municipal bond is issued by Karnes County; the maturity size is \$3.1 million and it's due to mature Feb. 1, 2019. SOURCE: Bloomberg.

bonds make up more than 50 percent of the fund's portfolio, and the fund's net asset value rose as oil prices fell in late 2014 and early 2015 (*Chart 4*). In addition, statistical analysis finds a strong negative correlation between the RVNU and the West Texas Intermediate (WTI) price. Comparing prices from August 2014 until April 2015, the Pearson and Spearman correlations suggest a negative correlation of 0.81 and 0.82, respectively.⁶ This negative correlation suggests the rise in the price of RVNU is linked to the fall in oil price.

Chart 4 Transportation-Linked Fund Rises as Oil Prices Fall



SOURCE: Bloomberg.

Falling oil prices generally harm oil-producing states and municipal issuers by hurting tax revenue and economic activity. While Texas' oil and gas state tax revenue began to decrease in August 2014, the overall municipal bond market does not appear to be impacted by the fall in oil prices as yet, with the majority of munis potentially exposed to oil and gas prices holding healthy investment grade ratings and avoiding downgrades to date.

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NOTES

- ¹ A severance tax is imposed on the removal of nonrenewable resources such as crude oil, condensate and natural gas, coalbed methane and carbon dioxide.
- ² See "Texas Metros' Rapid Growth Likely to Slow Following Energy Price Drop" by Amy Jordan, Federal Reserve Bank of Dallas, *Southwest Economy*, First Quarter, 2015.
- ³ See "Oil Price Drop Will Have Varying Impacts on Municipals; Local Governments Appear Most At Risk" by Brian Tournier, Jan. 16, 2015.
- ⁴ See "Lower Oil Prices Weaken Prospects for Job, Economic Growth in Texas" by Michael D. Plante, Federal Reserve Bank of Dallas, *Southwest Economy*, First Quarter, 2015.
- ⁵ See "Moody's Places 10 Permian Basin and Eagle Ford Local Government Credits Under Review for Downgrade" by Moody's Investors Service, Feb. 25, 2015.
- ⁶ For two variables of interest, the Pearson and Spearman correlation measures the extent to which the data for the variables are correlated. The correlation ranges from -1 to 1, where they correspond to a perfect negative and positive linear relationship, respectively, and 0 indicates no linear relationship.

Noteworthy Items

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Federal Reserve Governor Daniel Tarullo speaks at Independent Community Bankers of America Summit about community bank regulation and supervision (April 30, 2015).

Tarullo discusses changes in community banking regulation and how the Fed's approach to supervising community banks differs from that of other banks. Tarullo also speaks about the effects of the Dodd-Frank Act on community banks including regulatory tiering and the amendments made to the Small Bank Holding Company Policy Statement.

Federal Reserve Chair Janet L. Yellen speaks in Rhode Island about the outlook of the economy (May 22, 2015)

Yellen explains how the U.S. economy is still in the process of recovering from the financial crisis and why the recovery has been so slow as well as how she believes the U.S. economy can recover from the recession in the coming years.

Federal Reserve releases FOMC Statement (June 17, 2015)

Fed Governor Powell Speech to Kansas City Fed: Building a Safer Payment System (June 25, 2015)

Powell addresses Kansas City Federal Reserve Bank at a conference on payments security. Powell summarizes efforts made such as the release of the Fed's paper in January, which outlined the objectives and strategies involved in the improvement process. Powell also discusses two task forces that have been assembled with missions to improve payment security and increase the speed of payments in the United States.

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