InghamEcon, LLC

Karr Ingham

P.O. Box 7531 Amarillo, TX 79114 (806) 373-4814 karr@inghamecon.com

The Midland Development Corporation presents

The Midland-Odessa Regional Economic Index and the Texas Permian Basin Petroleum Index

December/4th Quarter/Annual 2017

The Midland-Odessa combined general economy continued to flourish through year-end 2017 with the Midland-Odessa Regional Economic Index improving to 215.5 in December up from 213.6 in November, and up 12.9% from the December 2016 MOREI of 190.8. The index troughed in October 2016, completing a deep contraction of 19% lasting 21 months. Since then, the index has expanded by 13.4% through December. The pace of expansion hastened in the fourth quarter 2017 with the Midland-Odessa Regional Economic Index increasing at an annualized 14.4% rate of growth. Still, the index remains some 8.2% down compared to its peak level of 234.6 achieved in January 2015. The MOREI under the current benchmarks (which are set to change with the coming release of updated employment data) is presently on pace to close that gap and break into new record territory in the third quarter or early fourth quarter 2018.

The regional oil & gas economy continued its expansion and recovery in 2017 as well with the Texas Permian Basin Petroleum Index posting a 29% increase for the year and rising for the 15th straight month in December. The regional rig count improved modestly in December, adding four rigs on average compared to November, but increasing by nearly 48% compared to December 2016. The average 325 rigs at work in December represents an increase of nearly 170% compared to the cyclical low point of 121 rigs in May 2016. Still, rig count growth in recent months has been sluggish and the December monthly average rig count is still down by over 140 rigs compared to the 467 rigs on the job in late 2014.

The Texas Permian Basin Petroleum Index itself remains down by about 100 points compared to its precontraction peak, with little chance that gap will be bridged in the coming year. Even if the index were to increase by five full points each month – about what is has averaged thus far in the recovery – it would still take 20 months to return to its peak. The bigger issue, however, is that greatly higher levels of activity in terms of the rig count, drilling permits, employment, and even price do not appear to be necessary simply because Permian Basin crude oil production is increasing rapidly and is at or above record levels even with other indicators lagging considerably behind pre-downturn numbers.

Crude oil prices increased slightly from November to December, adding about \$1.30/bbl on average from one month to the next (and then prices moved significantly higher in January). Still, the December 2017 monthly average is over \$48/bbl lower than the June 2014 monthly average in advance of the ensuing price collapse.

The crude oil production increases in the Permian are nothing short of staggering. Basin-wide production (including New Mexico) broke all prior production records in 2017, reaching an estimated 2.7 million barrels per day in December and totaling about 880 million barrels for the year according to the US Energy Information Administration. Those numbers may be high, but either way crude oil production in the Permian was certainly north of 800 million barrels in 2017, the highest annual total on record, and the daily production totals surpassed the 1973 record in the early months of the year. The Texas Permian Basin Petroleum Index tallies production in the three Texas Railroad Commission districts that cover the Texas side of the Permian, and our estimation for crude oil production in that region totaled over 670 million barrels for the year, a 12.3% year-over-year increase, with daily production reaching 1.97 million barrels in December. Any future revision to these numbers will almost certainly be upward, and of course production will continue to rise in 2018 sending daily production in the Texas Permian to over 2 million barrels in January or February and sending basin-wide crude oil production to levels approaching 3 million bpd by year-end.

Every single component of the Midland-Odessa Regional Economic Index was higher in 2017 compared to 2016. Most of the components were also posted year-over-year growth – and sharp growth at that – in the month of December and the fourth quarter as well with the exception of the construction indicators (real building permit valuations and single-family residence construction permits).

The employment data revisions in early March will very likely change these numbers and trends. Current employment estimates, which suggest year-over-year job growth at a rate of 2.4% at year-end 2017, are almost certainly to be revised upward, and probably significantly upward at that, with the Texas Workforce Commission's release of revised employment data for 2017 (and prior years as well, perhaps) in early March. If, for example, employment estimates and growth rates in 2017 are revised materially upward, that would raise monthly values for the Midland-Odessa Regional Economic Index and perhaps shorten the time to complete recovery (defined as surpassing the prior index peak level). And again, there is reason to believe that is exactly what will happen.

At year-end 2017 the Bryan-College Station metro area occupied the top spot in terms of job growth, posting a 3.8% rate of year-over-year employment additions; however, it is quite likely that were the estimates accurately reflective of the real-world situation – which they will be post-employment data revision – Midland and Odessa would hold the top two positions. And that will likely be the case with the release of the updated data.

General real (inflation-adjusted) spending per sales tax receipts in Midland-Odessa expanded rapidly in 2017, outpacing the 2016 annual total by nearly 20%. Fourth quarter spending was up by over 37% while the December total logged a 35% year-over-year increase. The spending totals remain slightly behind the levels achieved in 2014 (for all three of those time periods) but is rapidly closing that gap, and general spending is likely to enter into new record territory in the coming months. The same is true of auto spending, which also peaked in 2014 at record levels, but increased dramatically in 2017, including fourth quarter year-over-year growth of over 40%. This follows, however, two years of sharp decline in 2015 and 2016.

On the heels of dramatic declines in 2015 and 2016, construction activity recovered fairly impressively in 2017 with the inflation-adjusted valuation of all building permits issued in Midland-Odessa up by nearly 15%. However, the December and fourth quarter totals were lower compared to year-ago levels, and the 2017 annual total is still off by roughly 50% compared to its record year of 2014.

Single-family housing construction is faring considerably better. The record annual total for the number of permits issued for that purpose is 1,333 achieved in 2013; the 2017 annual total came up just short

but is second on the all-time list at 1,330. Again, however, the December monthly and fourth quarter permit totals were considerably lower compared to year-ago levels.

Existing home sales in Midland-Odessa surpassed 4,000 for the first time on record, and at the same time outpaced the 2016 sales total by 28% (the prior annual record was 3,550 sales in 2014). The average price of those sales increased significantly as well, posting a 7.1% year-over-year increase in 2017. The total dollar volume of residential real estate sales, a function of both sales and prices, adjusted for inflation, set new records in 2017 by far. The annual total was up by a sharp 34% year-over-year, and the December monthly and fourth quarter totals were up by 27% and 33%, respectively.

The combined Midland-Odessa economy clearly returned to sharp overall growth in 2017 following two years of deep declines. Neither the index itself nor most of its individual components have returned to pre-downturn levels, but in most cases that is likely to happen in 2018. The picture will be more complete once the revised employment estimates for Midland-Odessa are released on March 9. At that time, the Midland-Odessa Regional Economic Index will be updated accordingly.