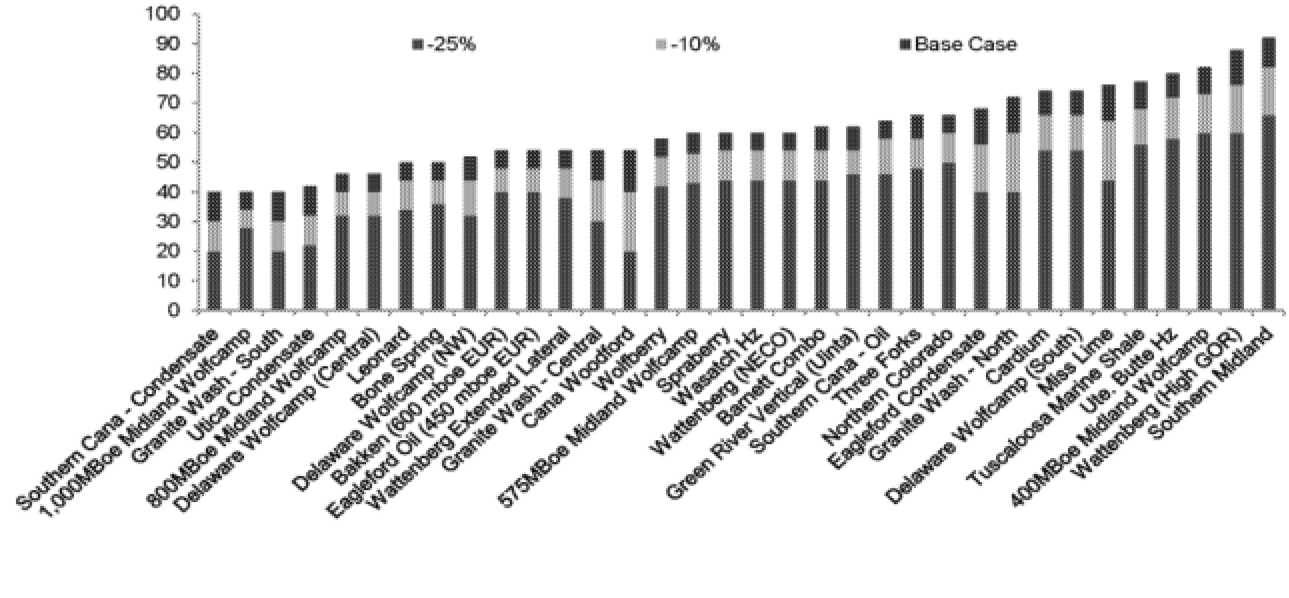
pad drilling and the inherent lag in bringing pad-drilled wells onstream, we estimate that the initial signs of a production impact of rigs added in 3Q15 will most likely not show up until early 2016. In other words, if we are to generate a meaningful level of growth by 2H16, rigs need to be added in 3Q or 4Q 2015. Amongst large producers, Pioneer Natural Resources (PXD) has been most vocal about plans to add rigs mid-2015, but various other large operators, including EOG, OXY, NBL, etc. have suggested as much by late 3Q, early 4Q.

Figure 46: Breakeven oil price by play, including sensitivity to decline from late-2014 well costs



Source: Deutsche Bank; *breakeven assumes at a 10% cost of capital

While the amount of rigs necessary to support this level of growth is highly dependent on the level of efficiency gains that we see across the sector, we estimate that would argue for an incremental 75 to 100 rigs, or an 20% increase from mid-2015 trough level of ~450 for unconventional oil-directed horizontals. We expect that the outlook is likely to remain volatile, with prices likely to overshoot to the upside, and with the potential for producers to accelerate too soon and further oversupply the market.