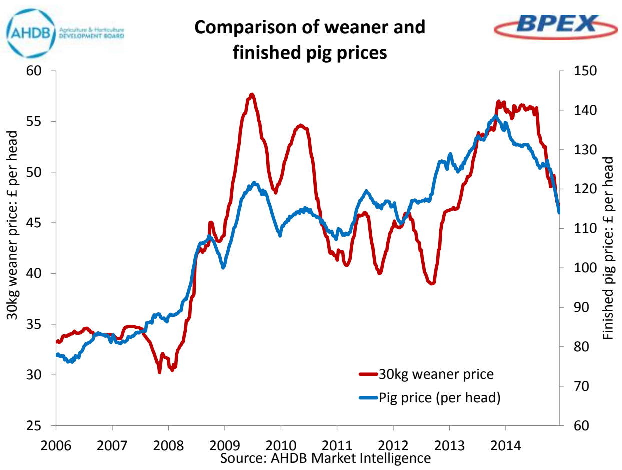
How do weaner prices respond to pig & feed prices?

In recent months, weaner prices have followed the same downward trend as finished pig prices. This has come despite feed prices being at a relatively low level. It is unsurprising that these two factors are the main determinant of weaner prices. Feed represents at least 70% of costs for finishers, other than the cost of the weaners, and finished pig prices determine their income. So how do weaner price levels relate to the other two prices?

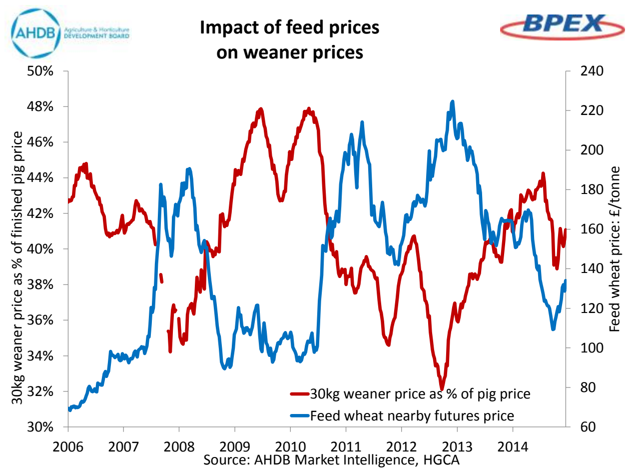
The analysis below covers 2006 to 2014, when prices were much more volatile than in the preceding years. It focuses on 30kg weaner prices. Although more animals are now traded at 7kg, prices for the heavier category have been collected for much longer.

30kg weaner prices are quoted in pounds per head, so we have converted finished pig prices to a similar basis using average carcase weights. During the nine year period, weaner prices ranged from just over £30 per head to over £57. This is a slightly greater percentage variation than that seen in finished pig prices, which have ranged from just over £75 per head to nearly £140. Weaner prices have often shown more short-term volatility too.



Comparing the two pig price series shows that, as expected, there is a broad relationship between them. On average, the 30kg weaner price was around 40% of the finished pig price during the nine years covered. However, there were periods when it was higher than this and periods when it was lower. The percentage reached as high as 48% in 2009 and again in early 2010 and fell as low as 32% in late 2012.

Not surprisingly, the variation in the relationship between weaner and finished pig prices can largely be explained by the price of feed. During 2009 and early 2010, feed prices were relatively low, with nearby UK feed wheat futures fluctuating around £100 per tonne. In late 2012, feed prices were very high, with feed wheat futures reaching record levels. Looking across the whole time period, it is clear that as feed prices rise, finishers are not prepared to pay the same price for weaners in order to protect their margins.



To get a more detailed understanding of the relationship between prices for weaners, finished pigs and feed, we can model weaner prices based on the other two. A simple model shows that, on average, every £1 added to the finished pig price (in £/head) adds around 50p to the weaner price. Equally, every £1 added to the nearby UK feed wheat futures prices reduces the weaner price by about 9p/head. This would mean that, for example, a 10p/kg fall in the pig price would need to be offset by around a £45 per tonne fall in feed prices to leave weaner prices largely unchanged.

The model does indicate that, although most of the variation in weaner prices can be explained by pig and feed prices, there is also an element of seasonality. Weaner prices in the spring tend to be around £2 per head higher than can be explained by the two other prices, with the opposite true in the autumn. This reflects the seasonality of supplies which mean that finished pig prices tend to peak in the summer, when the spring weaners will be sold, and be lowest at the start of the year, when the autumn weaners are marketed.

This seasonality suggests that finishers may take into account the expected direction of finished pig prices when setting a price for the weaners they buy. Perhaps unsurprisingly, it seems that industry sentiment has a part to play too. Weaner prices have been lower than predicted by the model at times, including the second half of 2011 and the autumn of 2012, both periods when producers were losing money and were concerned for their future. Equally, prices were higher than expected in the summer of 2009 and for much of 2010, periods when profitability had been good, for the first time in many years, and producers were in a positive mood.

This analysis suggests that weaner prices are set in a rational way, with the market weighing up the balance between finished pig and feed prices. Therefore, with a view about the future direction of those two markets, producers should be able to assess the likely direction of weaner prices too.