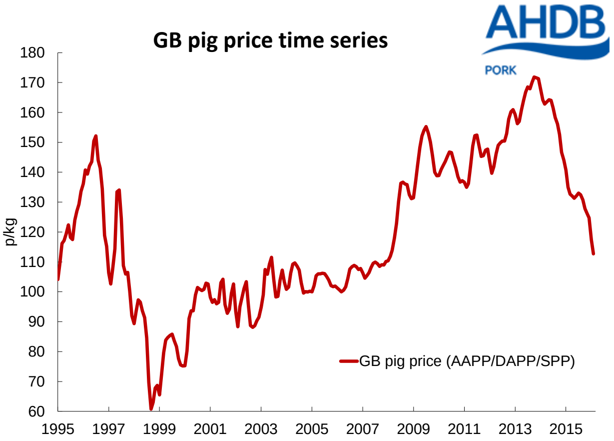
Future pig prices – what does the past tell us?

Everyone in the pig industry is well aware that pig prices are low at the moment. In fact, they are at their lowest level since early 2008. However, before that, prices had been at even lower levels for over a decade. Between August 1997 and December 2007, the monthly average pig price was only once above 110p/kg and was frequently below £1/kg.



Source: AHDB analysis based on data from various sources

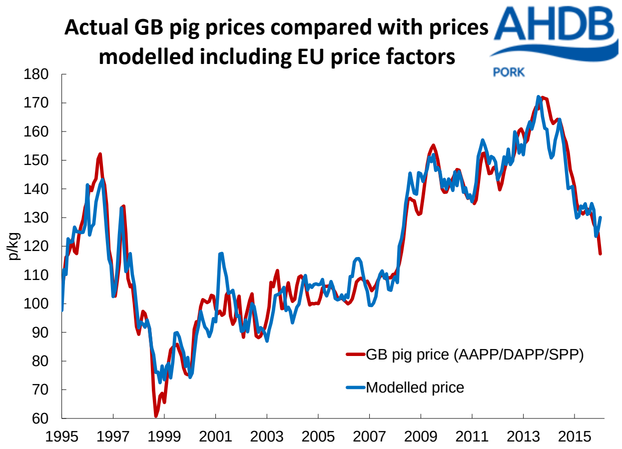
So, can we expect another decade-long period of low prices or will they pick up as quickly as they have fallen? Of course, it is impossible to be sure about the answer to this question. However, we can look at the lessons of history to see what they might be able to tell us.

We have modelled the relationship between pig prices and various other factors. Our analysis covers the time period from 1995 onwards, which includes periods of high and low prices, of relative stability and of extreme volatility. The factors modelled include:

- Exchange rates of the pound against the euro & dollar
- Consumer Price Index
- UK and EU pig meat production and change on year
- UK imports and exports of pig meat
- Crude oil price
- Global food prices and cereals prices
- Seasonality factor
- EU pig prices
- Unit price for imported pork

While these factors are thought to cover most of the main influences on the UK pig market, there is no consumer demand indicator. This is due to the lack of a consistent long-term monthly data series covering demand for pork.

Modelling price based on these factors allows us to explain well over 90% of the historic variation in GB pig prices. While there are some short-term deviations, there are few periods when the actual price was significantly different to the modelled one, as illustrated in the chart below.



Source: AHDB analysis based on data from various sources

Using historical data of this kind to predict future prices relies on the assumption that historic relationships between factors will continue to hold true. While, this may be the case, there could be new issues which will influence how the modelled factors and pig prices relate to one another.

Taking all this into account, what does the model tell us about current and future pig prices? First, it shows that the pig price decline over the last two years can largely be explained by the factors analysed. However, based on the model, the pig price should have increased in January, when in reality it fell again, so it was too low according to the model. Current indications are that the modelled price should have increased further in February, although some of the model variables are not yet available for that month. The main reasons for the model moving in this way are the weaker pound and the firmer EU price (in sterling terms).

History suggests short-term deviations from the model do happen but typically correct themselves fairly quickly. If that is the case again, we might see some price recovery in the months ahead. However, this relies on there being no factors missing from the model which might impact on prices.

There are instances in the past, for instance during the 2001 FMD outbreak and around the 1996 BSE scare, when the model has temporarily broken down. While there are clearly no disease issues of this kind at the moment, things such as the apparent reduction in consumer demand for fresh pork, the Russian import ban and the WHO/IARC report, could be contributing to the current lower than expected prices.

If these extra factors are having an influence, it may fade, potentially allowing prices to recover. Beyond that, price developments will depend on how the factors influencing prices change. The key uncertainties are the pound-euro exchange rate and EU pig prices, as other major factors are more predictable. Political issues such as the result of the EU referendum and the length of the Russian ban will affect them, among other things. Therefore, there remains some uncertainty about the future level of pig prices.