Residual Value Expectations in Periods of Recession, Deflation and Inflation

A report for BCA

Third of a series of three Working Papers regarding residual values forecasting, issues associated with risk minimisation, and strategies to enhance vehicle prices in an unstable market. The UK has been used as the principal source of data.

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'Rational' instead of 'accurate' is too specific a term; car residual value forecasting is of critical importance to the leasing industry in terms of setting rental terms and being able to make a satisfactory profit.

Good residual forecasts in a period of economic stability are difficult enough. However, introduce the extraneous macroeconomic factors of recession, deflation or inflation into the equation, and many commentators would argue that forecasting becomes as much a black art as a disciplined exercise.

Forecasting becomes as much a black art as a disciplined exercise

The global economic recession knocking at the door during the second half of 2008 and manifesting itself in early 2009 is no exception.

Objectives

The objectives of this briefing note might be summarised as follows;

- To provide automotive user industry-based working definitions for the macroeconomic conditions of 'recession', 'deflation' and 'inflation', as they would typically apply to the fleet, leasing and daily rental industries – and their associated supply chains.
- To highlight the principal issues influencing residual values and residual value expectations.
- To examine principles and possible implications for used vehicle operations of the different status of the economy, in cases of normal economic activity, the economy in recession, in deflation and during inflation – without resorting to a complex computer or mass data analysis.

Despite expensive bespoke and generic computer programmes, whole books and business school courses devoted to both forecasting and residual values, the current writer has taken the liberty of seeking to review the topic in a few pages.

This paper seeks to explain the principles of the issues rather than provide a 'silver bullet' as a solution. The longer one spends in the industry the more one becomes convinced as to just how complicated and inter related with other activities it is.

Some working economic definitions

While it would be possible to use a formal economic definition for each of the business conditions that might impact on residual values, it is perhaps more useful to develop working definitions. The following are suggested;

- Normal or steady state economy; a period with a steady rate of economic development with inflation running within the government, EU, ECB or Bank of England's objective growth rates; effectively a 'steady state economy.

An economy in which output is falling and expected to continue to fall

- Recessionary economy; an economy in which output is falling and is expected to continue to fall. Sellers are willing to take a lower than normal price and margin in an attempt to keep cash flows positive with the expectation of a foreseeable recovery.

- Economic depression; a prolonged period when an economy continues to decline albeit at a slow rate, without moving to a period of recovery and economic growth – continuing to run at a level lower than it achieved in the past.

- Deflationary economy; an economy in which prices continue to fall and may even drop to levels at or below cost of production or provision while demand continues to decline.

- Inflationary economy; a business situation where too much money may be chasing too few goods or services due to lack of supply – 'demand inflation'. The alternative 'exchange inflation' – an economy showing 'a rise in price levels due to a weakening of the currency in a market that relies on imports for its goods or services'.

While these five working definitions provide the basic parameters for changing price levels it is still important to offer a further definition – in this case, one that links residual values to the alternative states of the economy. Consider the following;

> *The residual value of a motor vehicle is the average price it is anticipated to achieve if offered for sale today sold through the same disposal channel.*

While the foregoing definitions are perhaps a little academic, they give an indication as to what one is looking at – the expected average value a group of similar vehicles might achieve at a predetermined point in time.

Issues influencing future residual value

Residual values can be influenced by a plethora of factors

Beyond the four economic states mentioned in the previous paragraphs, residual values of vehicles can be influenced by a plethora of different factors. The checklist in Figure 1 overleaf highlights some which are more widely recognised;

To add to the complex group of issues to be analysed and weighted, leasing companies need to be able to predict how conditions will have changed by the time the unit is actually returned for disposal in three or four years time.

Figure 1; Issues influencing vehicle residual values

- State of the economy and economic sentiment
- Predicted/prejudiced growth/collapse of economic expectations
- Type of used vehicle to be offered; age/mileage/condition
- Relative volume of similar units on offer
- Availability/price/access of finance in used car market
- Vehicle popularity as new unit
- Model replacement plans/expectations
- Predicted fuel prices/availability
- Credibility of model as new/used car
- Rate of change in technology
- Colour and specification of used vehicle.

For Illustrative purposes only

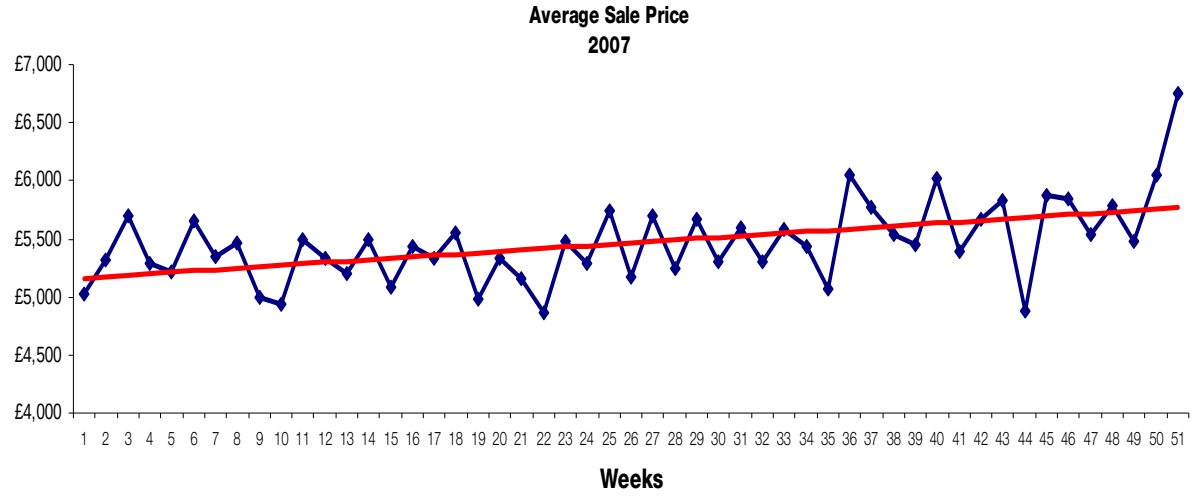
Thus, as happened in 2008, the economy, far from moving ahead under firm prudent and economic government as was claimed at the beginning of the year, moved into a state of economic downturn, then to a state of predicted recession – with all of the uncertainties that status brings with it.

Residual value forecasting in economic disequilibrium

The next stage of the exercise in residual value forecasting is to establish benchmark figures from which residual values may be predicted.

The index in Figure 2 shows average used car prices achieved at auction in the UK in 2007 – although the 'ongoing average' over the period showed little serious fluctuation, there is a slight sign of downturn towards the end of the year. This is pretty close to a steady state economy.

Figure 2; Strong residual value averages at auction; 2007



Source; BCA

The trend line shown in Figure 3 shows the falling average residual values for prices achieved at auction in 2008 – demonstrating a clear downward trend moving into a recessional situation as happened in late in the year.

Figure 3; Declining residual value averages at auction; 2008

Source; BCA

A third trend shown, not illustrated, but similar to that shown in Figure 2, could be seen as inflationary and would represent a steep rise in residual values because new car prices were rising too. This is a serious trend line and represents monetary price escalation. From fleet operators' viewpoint, new car prices would also be escalating in monetary terms.

There is some concern, as yet fairly quiet, that if the economy slips into a period of prolonged recession or even deflation, when it recovers it may move into a period of inflation, driven by the funds that have been pumped into the economy – that is an issue for a later working paper should it happen.

A well nigh impossible forecast is to be able to spot the point when residual values stop falling and begin to recover; the most useful management tool for that would be 'luck'.

The challenge for Used Car Sales Managers is to predict figures 2-3-4 ahead

The challenge for Used Car Sales Managers is to be able to predict these figures 2-3-4 years ahead, and forecast with great confidence what average residual values of clutches of essentially similar vehicles will be. That could perhaps explain why the average period of employment of a remarketing manager is around three years.

The following paragraphs seek to present the issues associated with predicting residual values in each of the economic scenarios noted previously.

Steady state residual value characteristics

In a steady state economy, given a free supply and demand for used vehicles, average residual value forecasts can be relatively predictable and to all intents should remain steady. There could be some fluctuation driven by temporary excess in supply or demand. For example, a major defleeting to a local used vehicle market could depress residuals until those units have been flushed through the system. Similarly, there could be a fall-off for specific models if they prove unpopular either as new or used cars, or if a model change is imminent.

The simple rule of thumb for used vehicle residual value forecasting would be an equation similar to that shown below;

$$\frac{\text{Current new car price}}{\text{Original new car price}} \times \text{Current average residual \%} = \text{Forecast RV for current car at same age and condition}$$

Such an equation incorporates a small degree of proportionality into the equation which some might call unnecessary, but the implication is that figures could move up or down.

The route to disposal with this state of the economy might be summarised as 'most cost-effective minimising transaction costs'.

Inflationary pressures on residual values

The pressures here would indicate a steady rise in the monetary residual values of units. The implication for fleet operators, leasing companies or dealers is that the monetary residual value achieved may be 'pleasantly high' compared with the steady state situation.

The sting in the tail is that prices will have escalated

The sting in the tail is that, in monetary terms, the price will have escalated significantly from the time the unit now being replaced was acquired. That difference in new unit prices will demand a significantly higher monetary acquisition price.

A simple rule of thumb equation to provide a starting point for such forecasts and working on a sample of used vehicles of a specific type might be as shown in the equation below. Such an equation can easily be used with a laptop to sample a group of vehicles – but it illustrates the point.

$$\text{Used vehicle price at given mileage and time [1]} \times \frac{\text{Current new car price [2]}}{\text{New car price [3]}} = \text{Projected used car price [4]}$$

[1] Average mileage, time and condition for current vehicles taken over a common period and of the same age.

[2] Current new vehicle price for units whose projected used vehicle price is sought.

[3] New vehicle price of the sample of vehicles used in [1].

[4] Projected used vehicle price of the sample under evaluation, at the same mileage and condition.

From a negotiators' viewpoint there is a distinct benefit in being in goods rather than in cash, as money is slipping in value – if inflation is serious, there could be a serious loss in monetary value. Goods – i.e. vehicles can appreciate in monetary terms, while money does not and declines in purchasing power.

Options that might be considered to maximise residual values, and minimise the difference with the replacement car price, would be to seek a part-exchange deal or to put the vehicle through auction as close to the point the replacement new unit has to be financed as possible.

The critical issue is the new vehicle price.

Recessional or deflationary pressures on residual values

Get the unit to market as quickly as possible

In this case, financial pressures would normally encourage sellers to move into cash as quickly as possible – in that the predicted average monetary residual value might be expected to fall in the future. Hence, get the unit to market as fast as possible.

However, for buyers of used vehicles the opposite is true – buying those units as late as possible, in the expectation that residual values will continue to decline.

From a dealership viewpoint, the message is simple 'keep used car stock to a minimum and turn it over as fast as possible.' Equally important, is the dealer trading message – 'target your market and seek fast turnover, reducing prices if units do not sell quickly enough – and have a base price at which the unit will be sent to auction and replaced.'

The key to minimising losses is to 'shift the metal as fast as possible'

From leasing companies' viewpoint, the key to minimising losses, in a period of collapsing used vehicle prices, is to 'shift the metal as fast as possible and convert to cash or kind quickly'. That might be handled either by part-exchange against a replacement unit, or selling quickly through auction.

'Fleet hygiene' is a phrase that springs to mind – 'no spare units or units subject to delay on the way to disposal' – assume their residual values drop every day the unit is retained.

Some conclusions

One of the keys to profitable leasing programmes that has come to the fore in the past year or so, is the ability to predict realistic residual values for vehicles 2-3-4 years ahead – and then to dispose of those units as profitably as possible. This short briefing paper has examined some of the critical issues associated with disposal and predictions.

The key to minimising losses is to 'shift the metal as fast as possible'

Best-practice is much the same in all three cases – steady state economy, inflation and recession or declining residuals. Perhaps the key consideration is as much the cost of the replacement vehicle and the relationship between the residual anticipated on the current unit and the differential to the price of the replacement.

In the period of double digit inflation in the late 1970s, otherwise thriving leasing companies went out of business because they were unable to manage the crucial relationship between residual value of the current unit and the monetary price of the replacement vehicle effectively enough.

One hope is that the economy does not move through a period of recession-deflation then sudden inflation, as the massive quantities of liquidity that have been and are being pushed into the economy suddenly come home to roost. The real concern is that, at the time of writing, the word 'deflation' is being used far more by responsible analysts than it was during late 2008.

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