

More accurate forecasting – property derivatives or the IPF Consensus Forecast?

The IPF's UK Consensus Forecast has provided information on the outlook for commercial property since 1998. With the emergence of an active property derivatives market, there is now another measure of investors' expectations. This raises questions as to which provides the most accurate forecast of returns and why. We were asked to address these questions in two related research projects for the IPF, as part of the 2006-09 Research Programme, and for the European Public Real Estate Association (EPRA). It should be emphasised from the outset that is debatable in theory whether or not property total return swaps should be priced on the basis of forecast IPD returns. We abstract from this debate and instead extract, using the techniques widely employed by the property derivatives community, the IPD Annual Index returns implied by property derivatives prices.

In making our comparison with the IPF Consensus Forecast, the derivatives data used was that of the IPD Annual Index returns implied by property derivatives prices. In using this approach, one area where opinions vary is whether or not to incorporate a property risk premium into the calculation. Doing so can increase the estimate of the future returns implied by derivative pricing by up to 200bps. While accounting for the risk premium is our preferred approach, we also present an alternative set of calculations that omit the risk premium by way of comparison.

Our original research examined the evolution of property derivatives prices and the IPF Consensus Forecast between the beginning of 2006 and early 2009. However, with information

now available for the rollercoaster of 2009, the analysis has been updated for this article.

In comparing the IPF Consensus and derivatives market, we examined the returns implied by the derivative market's pricing at the time of the deadline for submissions to each IPF Consensus Forecast; this is about two weeks before the IPF publishes the report. The IPF was also able to provide, for its most recent surveys, details of when contributors made their forecasts. On average, these were made three to four weeks before the submission deadline.

Figures 1 and 2 profile the evolution of the IPF Consensus total return forecast, respectively, for the current year and over three years; the corresponding total returns implied by property derivatives prices are also shown. The latter were derived from historic property derivative prices provided by Merrill Lynch.

For the current year forecast, it can be seen from Figure 1 that the IPF Consensus and derivative market views were very close throughout 2006 and 2007. However, throughout 2008 and in early 2009, the property derivatives market was more pessimistic than the IPF Consensus.



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Figure 1: Current calendar year IPF Consensus Forecast total returns vs. returns implied by derivative prices

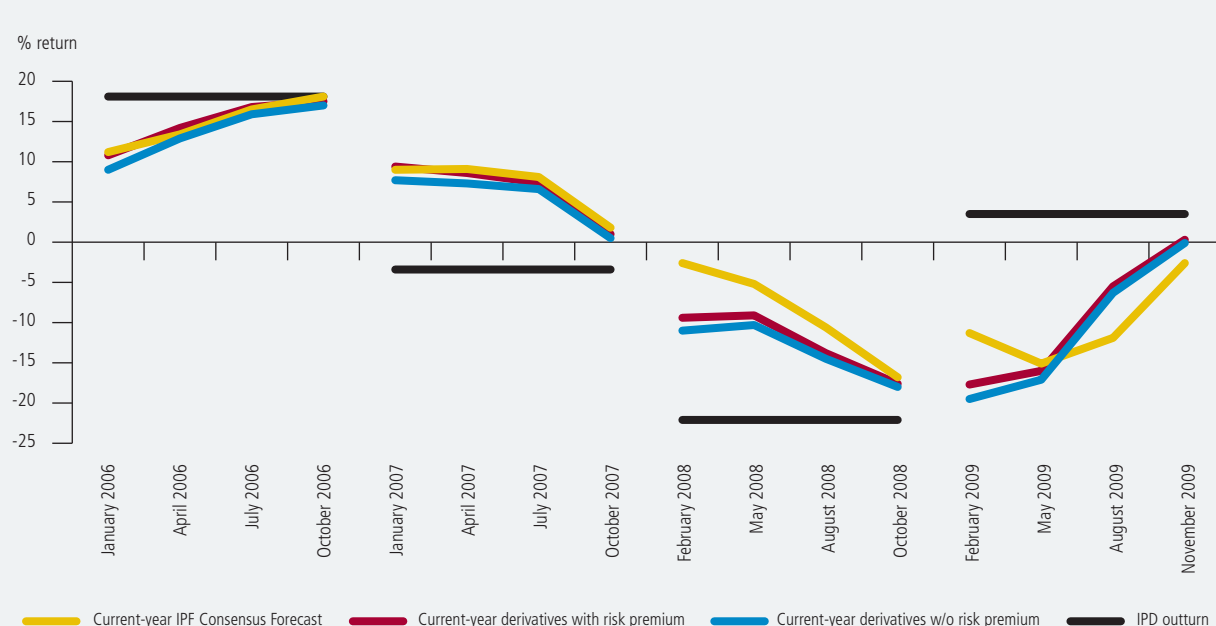
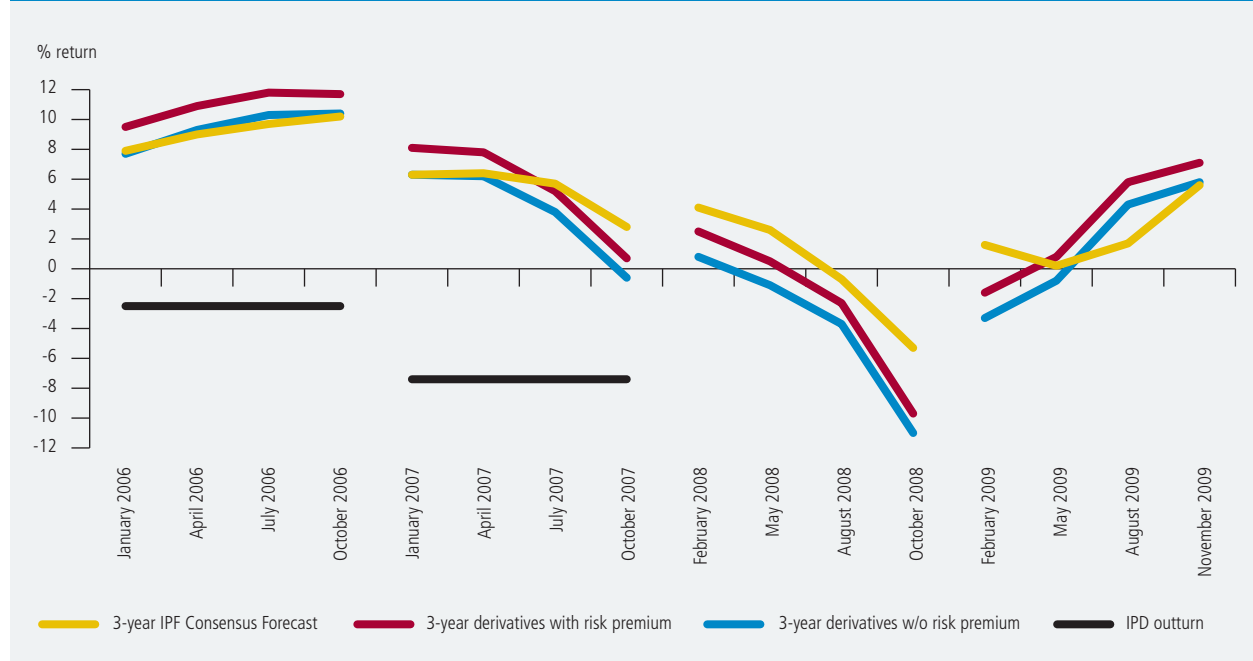


Figure 2: 3-year average IPF Consensus Forecast total returns vs. returns implied by derivative prices



The property derivatives market's greater pessimism in 2008 and early 2009, over the short term outlook, reflects a pattern first established in the second half of 2007 and subsequently reinforced in the second half of 2008. These periods were characterised by sharp downgrades in both the derivatives market and the IPF Consensus. However, in the second half of 2007, the derivatives market downgraded its views on annual returns for 2008 and 2009 much more than the IPF Consensus (which explains why, as shown in Figure 1, the derivatives market was more gloomy at the start of 2008 about the year's outlook than the IPF Consensus); the derivatives market did the same in the second half of 2008 to its view on 2009 and 2010. Both these were times when worries about the banking and credit crises escalated – something to which the derivatives market clearly responded more aggressively.

The effects of these sharper downgrades in the second halves of 2007 and 2008 are illustrated in Figure 2 which shows the derivatives market and the IPF Consensus view on the prospects for three-year returns. Interestingly, while the derivatives market in 2006 and early 2007 had a more optimistic medium-term view than the IPF Consensus, the two sets of downgrades reversed this and led to it having a gloomier medium-term view from the middle of 2007 onwards.

The downgrades by the derivatives market in the second halves of 2007 and 2008 also led us to conclude that its shorter term record, on average, was better than the IPF Consensus. However, since the original report was completed, this record has been undermined by the woeful experience of 2009 when, at the start of the year, the derivatives market was indicating IPD

returns of around -19%, compared to the 3.5% outturn. By contrast, the IPF Consensus has been superior two years out.

Our analysis found that the derivatives market was more 'sensitive' than the IPF Consensus Forecast. This was not just about the derivatives market responding more sharply to changes in the economic outlook. Nor was it primarily the comparative insensitivity of the IPF Consensus which results from the long (3-month) period over which forecasts are accepted by the IPF. It was more a question of 'sentiment' having a greater impact on the property derivatives market. This is highlighted in the sharp upgrades the derivatives market has made in the second half of 2009, as shown in Figures 1 and 2.

Figures 1 and 2 also indicate that neither the IPF Consensus Forecast nor the derivatives market has a good 'forecasting' record. At the beginning of 2006, neither anticipated how good the returns were going to be for that year; similarly, neither anticipated how poor the coming year's returns were going to be at the start of 2007 and 2008. Furthermore, as Figure 2 shows, forecasts of 3-year returns made in both 2006 and 2007 were way too high. What is behind this poor forecasting record?

In the IPF report, we present attributions of the changes in the IPF Consensus capital growth forecasts and of its forecast errors.

One thing is clear – errors in forecasts of rental growth made a negligible contribution to the under-prediction in returns in 2006 and to the substantial over-predictions for 2007 and 2008. Equally, it goes without saying that inaccurate assumptions on yields were overwhelmingly the main source of error. The more interesting question is why were such assumptions on yields so wide of the mark?

The yield on UK property is determined by expectations of future income (i.e. rental growth) and the discount rate being applied to this future income. This discount rate is the combination of the 'risk free rate' (e.g. gilt yield) and the risk premium (which is a measure of sentiment). As the IPF Consensus provides the rental growth assumptions behind the capital and total return forecasts, it is possible to 'back out' the discount rate implicit in the forecast and to quantify the effect of revisions to the rental growth forecasts and to changes in the discount rate.

The detailed analysis is presented in the IPF report. The key conclusions are:

- in 2006, property's risk premium fell more than the Consensus Forecast implicitly expected;
- the most important influence explaining why the IPF Consensus total return forecast made at the start of the year for 2007 turned out so poor (9.0% compared with the IPD outturn of -3.4%) was that the risk premium rose, in contrast to the IPF Consensus Forecast prediction of a decline; and,
- in 2008, the major source of the error was the downgrading in medium-term rental growth expectations during the year. As highlighted below, most of this occurred in the last four months of the year (the time when the banking crisis escalated).

Our analysis also provides insights on the rapid downgrades in the medium-term return forecasts between July 2007 and October 2007 and between May 2008 and October 2008:

- those in the late summer of 2007 reflected both reductions in expected rental growth and an increase in the discount rate (effectively the risk premium); and
- Those in the summer and autumn of 2008 were associated largely with downgrades to expected rental growth, although there was also a sizeable impact resulting from an increase in the discount rate.

Figures 3 and 4 illustrate the above points. Figure 3 shows how the discount rate, and even more so, the risk premium fell up to mid-2007 and have since risen sharply. Figure 4 highlights that by February 2009, the IPF Consensus Forecast was expecting ERVs at the end of 2010 to be 23% lower than its January 2006 prediction; most of this downgrading occurred in late 2008 and early 2009.

In conclusion, neither the IPF Consensus Forecast nor the property derivatives market has a good forecast record over the last three to four years. An unforeseen economic recession, with the resultant effect on rental growth expectations, has impacted heavily on property values and contributed substantially to recent forecast error both on the part of the IPF Consensus Forecast and the property derivatives market. A more enduring influence has been (unpredicted) variations in sentiment – in particular the property risk premium. The property derivatives market has been more aggressive in discounting both these influences than the IPF Consensus Forecast.

Figure 3: Evolution of the long-term discount rate and risk premium implied by IPF Consensus Forecast rental growth

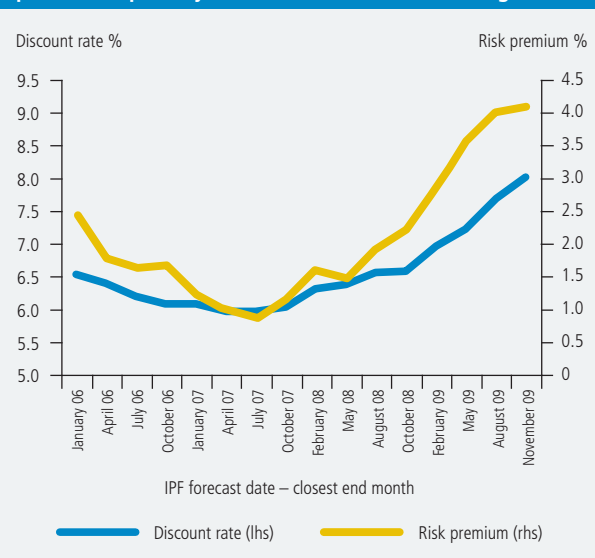
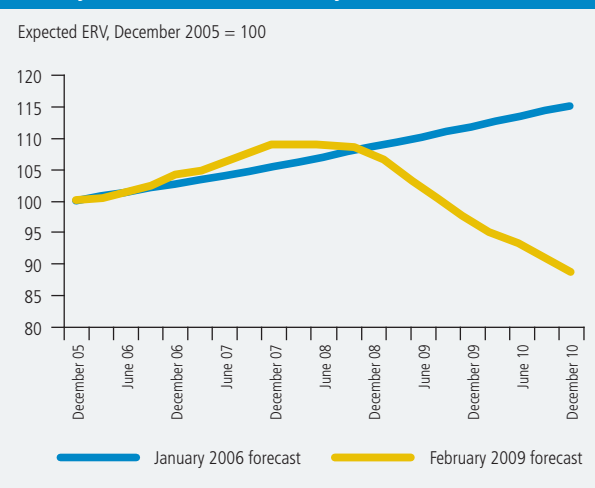


Figure 4: December 2010 rental values implied by IPF Consensus Forecast rental growth, January 2006 forecast vs. February 2009 forecast



Finally, there have been a number of developments since the completion of the report in summer 2009. Firstly, the IPD UK indices have turned around. Secondly, while the IPF Consensus Forecasts in August showed a modest improvement on the previous survey, the derivatives market – in line with our report's findings – responded much more aggressively (as can be seen in Figures 1 and 2). Lastly, the derivative market's implied IPD return for 2009 at the start of the year of about -19% was well off the IPD outturn of 3.5%, which not only challenges the derivatives market's short-term forecasting record over the IPF Consensus Forecast but which also emphasises the inherent difficulty of predicting the UK commercial property market.