Turning Tides of Interest...

Inflation is rising; the ONS states it has risen to 2.3% for March 2017.
To manage this, the Bank of England will be (soon) raise interest rates...

Inspired by Stepek's article 'The darkening shadows over the UK commercial property market', I thought to consider the impact of a change in interest rates. He states the combined impact of reduced valuations together with increased mortgage repayments having a negative impact on property assets.

Below are a few calculations to explore how a 1% increase in interest rates impacts the value and income of a property (Situation 1 and 2). Then, the same 1% change is shown to have a greater impact from a lower interest rate starting point (Situation 3 and 4), as in the current economic context. Lastly, if an investment maximises the borrowing opportunity of the low interest rates, it is even more exposed to rises in interest rate changes. The numbers are small and rounded, for illustrative purposes.

Situation 1
A property rent receivable is £6 p.a.
The income can be capitalised at 6% yield equating to a £100 capital value.
It is 50% financed with a mortgage, i.e. £50 is equity (the owner's own money) and £50 loan.
The £50 loan is repaid at a variable 5%, equating to £2.5 p.a.
The rent income after financing per annum equates to 6-2.5 = £3.5 p.a.
The rent cover is x2.4
This rent income equates to 3.5/50 = 7% return on equity.

If interest rates rise by (a mere) **+1%**, how does this affect the value, with the same loan?

Situation 2
The income is now capitalised at 7% equating to a £85.7 capital value, a **14.3% drop**.
The £50 loan repayment now rises to 6%, equating to £3 p.a.
The rent income after financing per annum equates to 6-3 = £3 p.a.
The rent cover is x2
This rent income equates to 3/50 = 6% return on equity.

With the 1% change, the bank covenants thresholds may now be reached. For example:
Loan-to-value ratios rise from 50% to 58%
Rent cover drops from x2.4 to x2

This gets particularly critical with today's extremely low interest rates due to the fact that small changes in interest rates have a relatively larger impact. In the following calculations, the initial yield, capitalisation and loan rates start at 1% less than the above examples, so that:

Situation 3
A property rent receivable is £6 p.a.
The income can be capitalised at 5% yield equating to a £120 capital value.
It is 50% financed with a mortgage, i.e. £60 is equity (the owner's own money) and £60 loan.
The £60 loan is repaid at a variable 4%, equating to £2.4 p.a.
The rent income after financing p.a. equates to 6-2.4 = £3.6 p.a.
The rent cover is x2.5*
This rent income equates to 3.6/60 = 6% return on equity.

Now, if interest rates rise by **+1%**, how does this affect the value, with the same loan?

Situation 4
The income is now capitalised at 6% equating to a £100 capital value, a **16.7% drop**.
The £60 loan is now repaid at 5%, equating to £3 p.a.
The rent income after financing per annum equates to 6-3 = £3 p.a.
The rent cover is x2
This rent income equates to 3/60 = 5% return on equity.

With the 1% change, the bank covenants thresholds may now be exceeded due to a more dramatic relative impact of the change. For example:
Loan-to-value ratios rise from 50% to 60%
Rent cover drops from x3 to x2

To compound the vulnerability of investments in property in a low interest environment, it is seductive to view a high rent cover of Situation 3* to be a sufficiently large margin for variability and so able to accommodate a larger mortgage. So, Situation 3 can be revised so that a 'safe' rent cover of x2.4, comparable to Situation 1, can be achieved again.   This is a higher mortgage of £63, at 53% of capital value. All looks well, as this rent cover is good, with a higher return on equity of 6.1%.

Now, if interest rates rise by 1%, whereby capitalisation rises to 6% and financing to 5%, the financing costs £3.15, with a net rent after financing of £2.85. The rent cover reduces to x1.9

Now, if interest rates rise by 1%, so that capitalisation goes up to 6% and financing to 5%, the bank covenants thresholds may now be crossed. The financing costs are £3.15, resulting in £2.85 rent income after financing. The Loan-to-value ratios rise from 53% to 63% [above 60% threshold] and rent cover drops from x2.4 to x1.9 [below a x2 threshold].

In summary, the impact of 1% interest rate increase has a profound effect on property investments. The impact is more pronounced from a low interest starting point, such as the current economic environment.

Property investors recognise the need to reduce gearing with rising interest rates. With a low interest starting point, this is even more essential. When interest rate do increase, it will be clear who has taken sufficient account of this. As Warren Buffett is quoted as saying: "only when the tide goes out do you discover who's been swimming naked"

Stepek, J. (2017) The darkening shadows over the UK commercial property market. *Money Week* [blog]. 26 April. Available from: http://moneyweek.com/uk-commercial-property-market/

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