# ProMS®

## Structuring Leases to Optimise Risk Adjusted Returns

Radley & Associates is an independent firm dedicated to the development of advanced simulation based analytics for the Commercial Real Estate industry. Our clients include leading banks, fund managers and REITS. We have deep expertise in property, simulation modelling, econometric analysis and risk.

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## *Case study background*

A commercial property investor owns a 20,000 square foot office which has almost completed its refurbishment and the owner is in negotiation with two potential clients. The ERV of the property is £700,000. One potential tenant is a medium sized manufacturing company with a low credit grade (Moody's B1). The other is a Home Office department with a full sovereign guarantee.
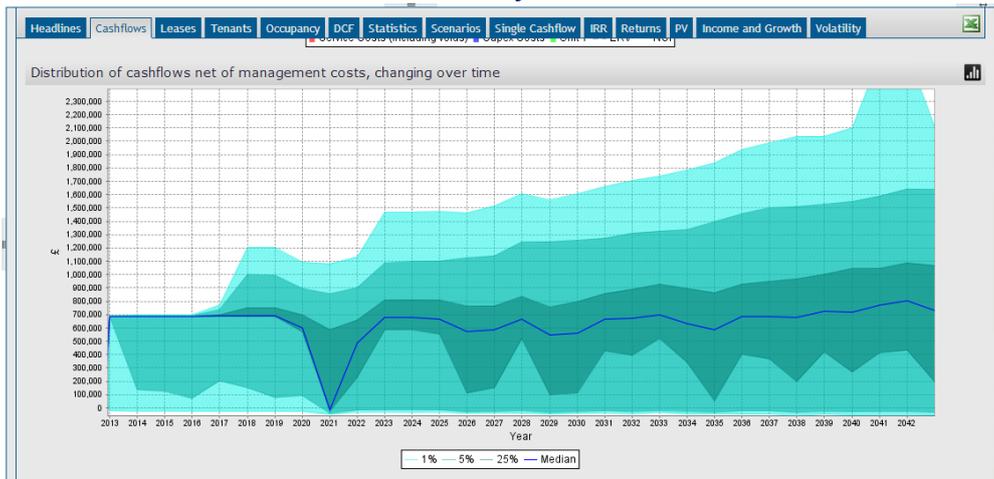
The manufacturer has proposed an 8 year lease with no breaks and an upward only rent review after 4 years. They are willing to pay £700,000 a year with no rent free period. The Home Office team have asked for a 25 year lease with a break after 15 years on a rental contract to increase at RPI plus 1% annually. The owner believes that agreement can be reached at a rent of £630,000 a year with 30 months' rent free.

*Exhibit 1: Lease structures compared*

| Tenant | Manufacturer | Home |
|---|---|---|
| Credit quality | Moodys B1 | AAA |
| Lease length | 8 years | 25 |
| Break | None | 15 |
| Rent review | Up only after 4 years | RPI + annually |
| Rent free | None | 30 |
| Annual rent | £700,000 | £630,00 |

The investor is in two minds. On the one hand, the Home Office is a safer tenant and is contracted for longer, but might leave after 15 years. On the other, the manufacturer will pay a higher rent much sooner. The Government tenant is RPI linked and RPI expectations are currently very low – but they may well rise over the length of the lease. In 8 years' time, the market might finally have picked up and the shorter lease might enable the landlord to find a higher paying tenant. Given the uncertainty surrounding rental growth, tenant defaults, lease events, inflation, costs and so on, (not to mention the relationship between RPI and rental growth), ProMS' cash-flow simulation engine can be used to analyse each of these two leases. The two leases were simulated through a standard set of 1,000 economic scenarios and then the distributions of their returns were compared.

The rent begins immediately and from 2016 there is a potential increase from the rent review. In 2020/21 the expected rent falls significantly as the lease comes to an end – though in some scenarios it continues. Where there has been a void, the rent then picks up but in a wide range of possible values going forward.

*Cash-flow distributions at different confidence intervals for Lease B:
The Home Office*
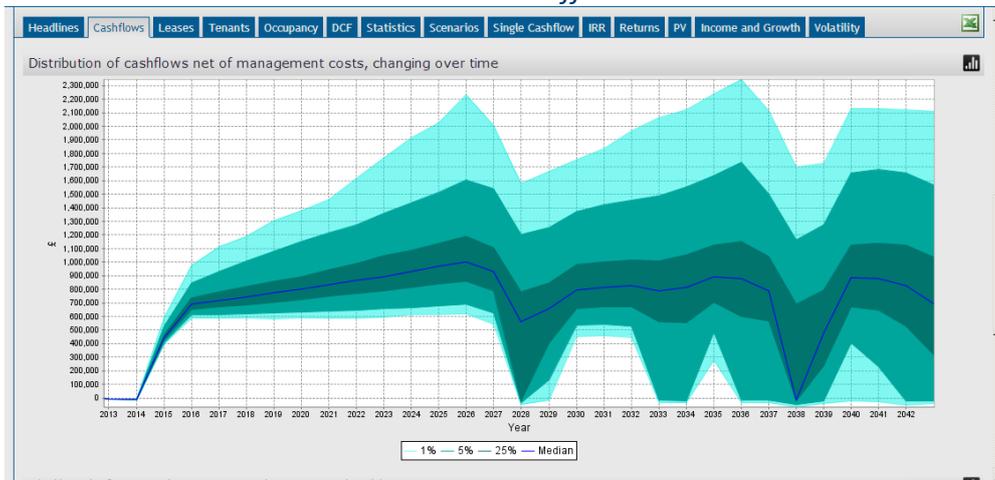


In this cash-flow distribution chart, the rent free period of 30 months is clearly visible on the left of the chart. Once the rent starts, it is unlikely to fall significantly (even though RPI can be slightly negative). In most scenarios, the rent rises to 2028 which is the year following the break. In this year, in many scenarios there is a void as the tenant leaves. Even if the tenant stays, the rent is typically reset to the open market rent as the tenant is assumed to be able to renegotiate the rent back to open market at a break. Thereafter, rental income is less predictable, though there is a significant chance of voids in 2038 at the end of the lease. By overlapping these two distributions, it is possible to see that the Government lease looks slightly stronger over the long term.

*Comparison of results*

| Tenant | Manufacturer | Home Office |
|---|---|---|
| **5 year IRR** | 4.04% | 5.74% |
| **Standard deviation** | 4.48% | 4.82% |
| **Tail risk (1 in 100)** | -4.99% | -2.81% |
| **NPV of cash-flows (£m)** | £8.8 | £9.4 |

ProMS' cash-flow simulation shows that the Government tenant gives a considerably higher 5 year IRR on average (about 1.7% higher). The tail risk – i.e. the 5 year IRR in the worst 1% of scenarios - is also less for the Home Office tenant. Note that the Government tenant has a higher standard deviation than the Manufacturer (4.82% vs. 4.48%). This indicates that the returns on the Government tenant's lease are more variable because of the variability of RPI and its consequent impact on rents. The 30-year discounted cash-flow analysis (see note below) indicates that the property is worth about £600k more with the Government tenant (using a discount rate of 7.5%).

*Comparison of IRR distributions*
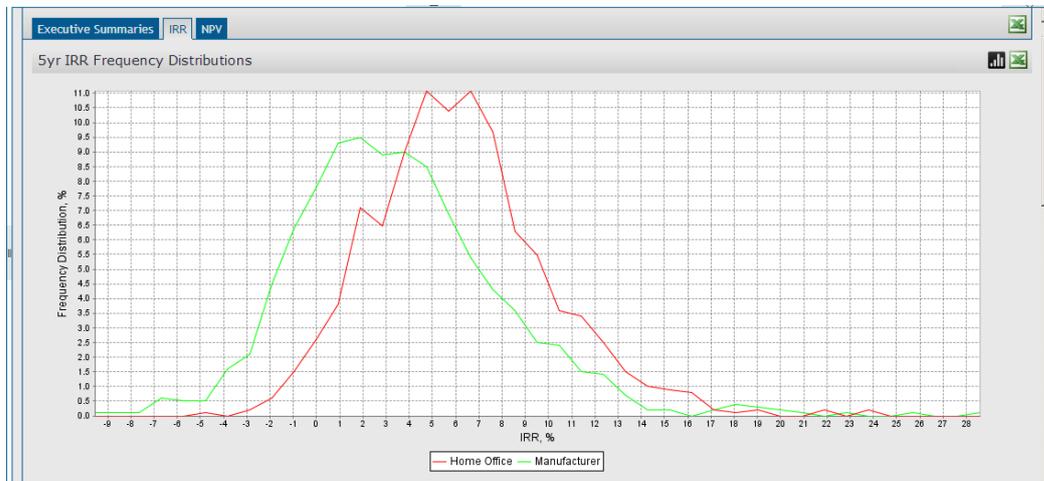


**Conclusion**

The distribution of IRRs shows that in almost all cases, the Manufacturer's lease will perform less well than the Government's lease. The only justification for choosing the Manufacturer's lease, would be that its standard deviation is slightly lower (34bps). But given the returns are 170bps higher for the Government lease, it would require a very risk adverse investor to prefer it.

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*Comment on the use of 30-year cash-flow valuations*
Note that the 30-year discounted cash-flow valuation is a useful measure: in a 5-year cash-flow calculation, the cash-flows (which can be accurately modelled) account for about 25% of the value and the terminal value (which is much more susceptible to capitalisation assumptions) accounts for 75% of the value. However, for 30-year cash-flow valuations, the terminal value accounts for less than 20% of the overall valuation.