

FA03//Sch5/Para3

Net present value of rent payable over term of lease

3 - The net present value (*v*) of the rent payable over the term of a lease is calculated by applying the formula:

Where —
$$v = \sum_{i=1}^n \frac{r_i}{(1+T)^i}$$

r_i is the rent payable (see paragraphs 4 and 5) in year *i*,
i is the first, second, third, etc year of the term,
n is the term of the lease (see paragraphs 6 and 7), and
T is the temporal discount rate (see paragraph 8).

The formula for how to work out the NPV is shown below in the Example.

The net present value of the rental over this period is calculated as follows

Year 1	NPV = $\frac{£4,000}{(1+0.035)}$ =	£3,864.73
Year 2	NPV = $\frac{£5,000}{(1+0.035) \times (1+0.035)}$ =	£4,667.55
Year 3	NPV = $\frac{£6,000}{(1+0.035) \times (1+0.035) \times (1+0.035)}$ =	£5,411.66
Year 4	NPV = $\frac{£7,000}{(1+0.035) \times (1+0.035) \times (1+0.035) \times (1+0.035)}$ =	£6,100.10
Year 5	NPV = $\frac{£8,000}{(1+0.035) \times (1+0.035) \times (1+0.035) \times (1+0.035) \times (1+0.035)}$ =	£6,735.79

The net present value is therefore the sum of the calculated values, that is, £26,779.83, rather than the £28,000 actually due. As NPV is below the threshold no tax is due

Example - 6 1/2 Year Lease NPV Calculation

Start Date:	01/01/2008	Rent	£ 20,000.00
End Date of term:	30/06/2014		
Term of lease:	6.5		

Year 1	£20,000	
Year 2	£20,000	
Year 3	£20,000	
Year 4	£20,000	
Year 5	£20,000	
Year 6	£20,000	
Final Year (part year)	£9,917	(£20000 * 181/365)

Hence the NPV calculation is:

Year 1	$\frac{£20,000}{1.035}$	=	£19,324
Year 2	$\frac{£20,000}{(1.035) \times (1.035)}$	=	£18,670
Year 3	$\frac{£20,000}{(1.035) \times (1.035) \times (1.035)}$	=	£18,039
Year 4	$\frac{£20,000}{(1.035) \times (1.035) \times (1.035) \times (1.035)}$	=	£17,429
Year 5	$\frac{£20,000}{(1.035) \times (1.035) \times (1.035) \times (1.035) \times (1.035)}$	=	£16,839
Year 6	$\frac{£20,000}{(1.035) \times (1.035) \times (1.035) \times (1.035) \times (1.035) \times (1.035)}$	=	£16,270
Final Part Year	$\frac{£9,917}{(1.035) \times (1.035) \times (1.035) \times (1.035) \times (1.035) \times (1.035)}$	=	£7,795

NPV = £114,365.00

The stamp duty land tax calculator provides the amount of stamp duty land tax on lease transactions.

Values Entered

Property Type:	Residential
Disadvantaged Area Relief:	No
Effective Date of Transaction:	01/01/2008
Start Date as specified in lease:	01/01/2008
End Date as specified in lease:	30/06/2014
Total premium payable:	£0
Year 1 rent:	£20000
Year 2 rent:	£20000
Year 3 rent:	£20000
Year 4 rent:	£20000
Year 5 rent:	£20000
Highest 12 monthly rent:	£20000
Relevant Rental Figure:	£20000
Term Of Lease:	6 Years 181 Days
Rent for Final (partial) Year: £20000 * 181/365	£9917

Results

This calculation uses the rates and thresholds which were effective from **23/03/2006**

Total Amount of Tax for this Transaction:	£0
Net Present value:	£114365
Stamp Duty Land Tax on Rent:	£0
Stamp Duty Land Tax on Premium:	£0

HM Revenue & Customs cannot be held liable for incorrect output from this Calculator. Correct information can only result from this Calculator if correct details are entered.