



Real Estate Valuation and Investment Opportunity Analysis

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Abstract

In this paper, we study how to value real estate and present the results of each real estate valuation. Finally, recommendations on how much should be offered to purchase this asset will be given through comparing the rents achievable, market conditions, and rental growth prospects.

Keywords: real estate, valuation, investment opportunity

1. INTRODUCTION

The subject of this report is to determine the value of the rights to a real estate developed with a complex of office places in London real estate market, situated in 44-46 Whitfield Street, London, W1T 2RJ. The forecasts predict that the London office and the property's refurbishment cost will be considered before the ultimate sale, based on the West End market conditions (Scott, P., 2013:262). The market value of the following interests is to be explored successively, including 3/4 29 College Street, Glasgow, G1 1QH; Unit 3B, 3 Watt Place, Blantyre, G72 0AG; Carlton George Hotel, 44-46 West George Street, Glasgow, G1 1DH and 28 St Andrew Square, Edinburgh, EH2 1AF.

The valuation includes determining the value for the real state as an organized whole (Geltner, D. et al. 2001:287). The market values for the property interests will be accompanied by a critical discussion of the comparable evidence, assumptions and methods employed (d'Amato, M., 2015:210). Sinking fund and corporation taxation for which the current occupier is liable will also be considered in this appraisal report (Baum, A. E., & Crosby, N., 2014:69). Moreover, part of this paper involves undertaking data collection and interpretation of market evidence. Further information searches for recent transactions on CoStar Suite database will be conducted for a more integrated relative value appraisal (Florance, et al. 2018:768).

The real estate value was determined using the income-based approach, with the application of the

discounted cash flow (DCF) technique (Parkinson, A., Hill, S., & Wheal, R., 2016:165). The market rate of rents is set out in the comparative approach, using average price adjustment (Alonso, W., 2017:9). Finally, recommendations on how much should be offered to purchase this asset will be given through comparing the rents achievable, market conditions, and rental growth prospects for prime offices in London’s West End Market (Crosby, N., & Henneberry, J., 2016:1426).

2. VALUATION

This is the first property we will value using both the traditional valuation approach and DCF method (Scarrett, D., & Osborn, S., 2014:72). The investment target in 44-46 Whitfield Street, London, W1T 2RJ is an office building located at West End retail center. The 44 Whitfield offers building has an area of 12,000 square feet of modern office space for lease, which is spread over the six floors. We can take a look of its outdoor scene from the pictures as shown below (extracted from the brochure of 44 Whitfield Street):

These beautiful transparent windows ensure ample light to cast inside. The office building's distinctive specifications are fully rebuilt behind the new glazed brick facade, with modern glass art, bay windows, gold frame, new top floor, oak herringbone wood flooring, VRF air conditioning, hibiscus plasterboard, 150mm fully accessible raised floor, natural daylight, 8 passenger lifts and more (Real Estate Valuation and Appraisal Project Details). Besides the interior decoration and architecture design, the location of this property is also appealing. The nearest three stations, Tottenham Court Road, Good Street, and Warren Street are 10-minute walk away, and Heathrow Airport is a 36-minute drive away.

The initial total return of this newly renovated building is estimated at 4.75%, the annual implied growth rate for non-index-linked rents is 3.55%, and the long-term average retail price index is 3%. The required rate of return is 8% on average now (Zoopla Market Report 2018). The property seller requires a quote of more than £16,750,000, which is stated in the context.

SCHEDULE OF AREAS

Floor	sq ft	sq m
FIFTH	890	82.7
FOURTH	1,862	173
THIRD	2,026	188.2
SECOND	2,372	220.4
FIRST	2,300	213.7
GROUND	2,173	201.9
RECEPTION	408	37.9
TOTAL	12,031	1,117.9

According to the detailed plane graph of this office building and the table of the surface shown above (extracted from the brochure of 44 Whitfield Street), the total property contains 1,050 sq m (11,476 ft²) of usable office space and 37.9 sq m (408 ft²) of the communal reception area on the ground floor (Real Estate Valuation and Appraisal Project Details). The tenancy schedule contains

a 10 years lease currently signed by the Elf Factory for 220.4 sq m (2,300 ft²) of office space on the ground floor and the first floor (213.7sq m/2,300 ft²). Skyscanner Ltd recently signed another 10 years lease for the second floor with the area 220.4 sq m (2,300 ft²) of office space, along with the third floor taken by Epoch, and the fourth and fifth floors (255.7 sq m /2,752 ft²) taken by Channel Capital Advisors for £240,800 per year.

The calculation starts with the input of DCF valuation variables listed here as current rents/profit rents, rental growth rate, assessment frequency, and depreciation/renovation expenses. The DCF table in the appendix indicates total annual rental profits, calculates the present value of future earnings and obtains the investment value from the property situated at 44-46 Whitfield Street.

After calculating the sum of the discounted cash flows of the rents collected from the offices, the final valuation of the office building is then adjusted according to the purchase costs, disposal costs, exit yields, average market rent review rates, and refurbishment costs. The final valuation of the target property is thus calculated, and we got £17,137,373, which is shown in the appendix.

Compared with the seller of the office building asking for offers over £16,750,000 at this time, the investment appraisal result via our discounted cash flow calculation is £17,137,373. We conclude that the current ask price is reasonable and based on the future income that can be generated from the investment in the target property in 44-46 Whitfield Street.

A traditional market valuation can also be used as an alternative for the valuation estimation of this property (Hoesli, M., & MacGregor, B. D., 2014:272). The choice of traditional market value assessment methods is generally based on the valuation object and valuation purposes. When considering the valuation object and valuation purpose, the real estate investment value assessment should pay attention to the specific characteristics of investment behavior and the use of hypothetical development. In real estate valuation, the direct market comparison method is simpler and easier to understand than other valuation models (Green, P. E., & Krieger, A. M., 1995:9. The most important thing is that it can directly reflect the market state of real estate in the valuation process (Pagourtzi, et al., 2003:393).

The comparative property we refer to is 7 Whitfield St which was built in May 2016 (the CoStar Report published in November 2018). The sold price of the office building is recorded in CoStar database as £658,500 (£1,419/SF) in Aug 2012 for with area of 464 SF. The NI Yield for this sale is 7.35%. With this anticipated investing yield and the long-term average retail price index which is 3%, the market valuation of the referential property is calculated in view of over six years' required return in December 2018. Considering the renovation of the property in May 2016, the refurbishment expense of the property is estimated at £1,325,000.

Furthermore, by the end of October, the vacancy rate of the subject property had dropped to 16.6% YOY, and the Market Overall dropped by 0.6% YOY ((Zoopla Market Report on Whitfield St). These trends indicate a gradual increase in real estate profitability around this area. The population has grown at 7.30% in the recent five years, and the number of daytime employees keeps stable as 539,353 within one-mile scope. The growth of residents and daytime employees population will positively impact and value-added on the real estate valuation. The final traditional valuation of the property in 44-46 Whitfield is finally calculated to be £17,898,196. This price is higher than £16,750,000 offered by the seller, which indicates that the current return of investment and the rental fee per SF will increase in the future.

In this appraisal, the second property we will analyze is an apartment situated in 3/4 29 College Street in Glasgow, with the identification code G1 1QH. This property is a luxury apartment with three bedrooms situated on the third floor of a stunning conversion. The property has an area of 113 sq metres in total. It consists of an open plan lounge and dining area with adjoining kitchen area,

en-suite shower room and bathroom (2.5m x 1.7m). The unit is currently vacant and available for sale.

The property posted some other sales history on the website of Scottish Register. The average house prices in College Street, Glasgow G1 is recorded as £287,984 according to the data of the last 12 months. The most similar house type in College Street neighborhood is the 1/4, 29 College Street, Glasgow G1 1QH. This 3-bed flat is located at 29 College Street, Glasgow G1 1QH and has an estimated current value of £316,000. There have been 8 property sales on College Street, G1 over the last 5 years with an average house price paid of £274,506, and this flat was last sold on 8th Jun 2015 for £276,055. There are currently 54 homes for sale in G1 with an average asking price of £96,495 and 35 properties to rent in G1 with an average asking rent of £216 pw. Its valuation was estimated in the range of £301,000 - £332,000 currently using the traditional valuation approach.

Compared to these two properties in the interior decoration and house type, they have a similar location, and both of them have three bathrooms, two shower/bathrooms, and the living room. The 3/4 29 College Street has more advantageous features like the mezzanine floor and high ceilings which should be considered. We added £8,000 to reflect this difference, and the ultimate valuation of the property is calculated to be £320,868.

The third property is the Unit 3B located in 3 Watt Place, Blantyre, G72 0AG, approximately 13 miles southeast of Glasgow City Centre. The ground floor (2,431 sq m/26,172 sq ft) and first floor (808 sq m/8,694 sq ft) have office accommodation with a service yard (1,418 sq m/15,263 sq ft) and other car parking facilities for business usage (Real Estate Valuation and Appraisal Project Details). The estate was leased in September 2015 with a 21-year contract and seven annual rent reviews.

The current rental profit of 3 Watt Place is set at £176,045 per year, and the last sold price of the property is £2,131,553 (£61.14/SF) in Feb 2017. Besides, Unit 3B also has a rateable value of £186,000. We adjusted a 2% sinking fund and 21% rate of corporation taxation (Real Estate Valuation and Appraisal Project Details) and obtained the after-tax FRI payment. We estimate the NI Yield as 6.3% based on both the heritable and leasehold interests, which is the average level in Glasgow City. Using a dual-rate year purchase valuation method and the interest rate of 5.3%, we obtained the valuation of this unit as £2,324,147 in December 2018.

The fourth property to be valued is the 4-star boutique hotel named Carlton George Hotel, located at 44-46 West George Street, Glasgow, G1 1DH, right in the heart of Glasgow. This property is a fully leased building comprising a seven-story hotel. This 38,146 SF hospitality hotel building was built in 1880 and renovated in 2000. The property was last sold in May 2010 with £8,060,000 (£125,938.00/Room). There is also strong population growth and household growth trend in around the estate location with a rate of 3.01%.

The NI yield is recorded as 6.36% in CoStar Property for this hotel which we will compare with other similar properties as the return of investment. When valuing the landlord's and tenant's interests in the Carlton George Hotel, it is primarily assumed the rent represents 55% of the fair maintainable operating profit. The valuation of the property is 18,221,488 when using the traditional appraisal method, which is illustrated in the appendix.

The last property is a listed office located on Andrew Square in Edinburgh City. Currently, there are two corporate tenants: Virgin Money Ltd in the basement, 1-3 occupying 39,160 SF and Rathbones on the ground floor occupying 8,300 SF. The interior photo of their office indicates that it is well renovated to adapt to the demand of various tenants. When considering the rental fee (£25.00/SF Fully Repairing & Insuring) and the last sold price £22,775,633 of the office building in Mar 2007, the valuation of the property in 28 St Andrew Sq is calculated as £28,191,667.

3. CONCLUSIONS & RECOMMENDATIONS

In the commercial real estate investment markets of New York and London, transaction costs are high due to the private nature of the office markets, the heterogeneity of real assets, and the time it takes to acquire and dispose of property (Lizieri, C., & Pain, K., 2014:441). Usually, broker intermediaries provide knowledge of the asset, the market, and the counterparty to the transaction. By doing so, a trust could be enhanced between different parties and improve the market efficiency (He, Z., Kelly, B., & Manela, A., 2017:6).

A detailed examination of the figures reveals that the West End office market has performed at an above-average level for the past two years, which is currently at levels five times the long-term average in the 0-1000 sq ft size band (Lizieri, C., & Mekic, D., 2018:2). A key driver for the persistent global demand for London offices is its attractive pricing and the relative capital opportunity values (Beswick, J. et al., 2016:330). Properties in London remain compelling value, with prime yields coming to 4.25% for the City of London and 3.5% for the West End Market (Harvey, J., 2016:396).

Compared with London West End and New York Downtown Manhattan, the Edinburgh office yields came down in 2017, finishing the year in the scope of 5.00%-5.25% (Henneberry, J., & Mouzakis, F., 2014:544). The interest in the Grade B market there has increased, and at the same time, the yields hardening significantly (Rydin, Y., 2016:750). The very competitive marketplace could also witness its yields curve sharpen even further (Lizieri, C., 2018:190).

As a result, from the investment valuation appraisal in these office market locations, the London West End still has a high potential to provide the best opportunities and future yields for domestic and international investors (Heinig, S., & Nanda, A., 2018:250). Its pricing today is also reasonable without any foreseeable bubbles. Considering its famous art and retail industry, the number of households and daytime employees, and the trend in increasing net market rents in the office buildings, I highly recommend the West End Office Building Market as the alternative market investment choice for the investor.

APPENDIX

The following charts and figures have recorded the procedures of the calculations that we conducted in the valuation process of the target properties above:

Figure 1 - Income-based DCF Method in the Valuation of the 44-46 Whitfield Street, London, W1T 2RJ

Year	Groud Floor	MR	First Floor	MR	Second Floor	MR	Third Floor	MR	Fourth and Fifth Floor	MR	Discounted Cash Flow	
1	189,750	175,694	189,750	189,750	189,750	189,750	152,963	152,963	258,200	239,074	947,232	=K2+I2+G2+E2+C2
2	196,486	168,455	196,486	181,932	189,750	175,694	158,393	146,660	267,366	229,224	901,965	=K3+I3+G3+E3+C3
3	203,461	161,514	196,486	168,455	189,750	162,680	158,393	135,797	276,858	219,779	848,225	=K4+I4+G4+E4+C4
4	210,684	154,859	196,486	155,977	189,750	150,630	158,393	125,738	-	-	587,204	=K5+I5+G5+E5+C5
5	218,164	148,478	218,164	160,357	189,750	139,472	175,868	129,268	296,864	202,040	779,616	=K6+I6+G6+E6+C6
6	225,908	142,361	218,164	148,478	189,750	129,141	175,868	119,693	307,402	193,716	733,388	=K7+I7+G7+E7+C7
7	233,928	136,495	218,164	137,480	189,750	119,575	175,868	110,827	318,315	185,734	690,110	=K8+I8+G8+E8+C8
8	242,233	130,871	242,233	141,340	189,750	110,717	195,271	113,939	329,615	178,081	674,948	=K9+I9+G9+E9+C9
9	250,832	125,478	242,233	130,871	189,750	102,516	195,271	105,499	341,317	170,743	635,107	=K10+I10+G10+E10+C10
10	259,736	120,308	242,233	121,177	189,750	94,922	195,271	97,684	-	-	434,091	=K11+I11+G11+E11+C11
11	-	-	268,957	124,579	-	-	216,814	100,427	365,980	156,963	381,969	=K12+I12+G12+E12+C12
12	278,505	110,598	268,957	115,351	278,505	119,446	216,814	92,988	378,973	150,495	588,878	=K13+I13+G13+E13+C13
13	288,392	106,041	268,957	106,807	288,392	114,524	216,814	86,100	392,426	144,294	557,766	=K14+I14+G14+E14+C14
14	298,630	101,672	-	-	298,630	109,806	240,734	88,517	406,357	138,349	438,344	=K15+I15+G15+E15+C15
15	309,231	97,483	309,231	105,281	309,231	105,281	240,734	81,961	420,783	132,648	522,654	=K16+I16+G16+E16+C16
16	320,209	93,466	309,231	97,483	320,209	100,943	240,734	75,889	-	-	367,781	=K17+I17+G17+E17+C17
17	329,970	89,449	-	-	329,970	96,926	240,734	70,812	432,229	127,197	406,623	=K18+I18+G18+E18+C18
18	343,347	85,922	343,347	92,796	343,347	92,796	267,293	72,241	467,206	116,918	460,673	=K19+I19+G19+E19+C19
19	355,536	82,382	343,347	85,922	355,536	88,973	267,293	66,890	483,792	112,100	436,267	=K20+I20+G20+E20+C20
20+											9,510,624	=SUM(C20:E20,G20:I20,K20:L20)
Total MR		2,231,693		2,354,297		2,203,650		1,981,100		2,692,101	20,973,464	=K22+I22+G22+E22+C22+L2

Figure 2 - Final Valuation of 44-46 Whitfield Office Building in December 2018

Total MR DCF	20,973,464	
Purchase Costs	1,216,461	=B24*5.8%
Disposal Costs	524,337	=B24*2.5%
Exit Yields/Post	1,006,726	=B24*4.8%
Average Market	4%	=5%*(B2*1+D2*1/3+F2*1+H2*1/3+J2*1)/(B2+D2+F2+H2+J2)
Average Market	804,291	=B24*B28
PV of the	284,276	=1325000/(1+8%)^20
Valuation for	17,137,373	=B24-B25-B26-B27-B29-B30

Tax/% 35

	Comparison Property - 7 Whitfield Street, London W1T 2SB	44-46 Whitfield Street, London, W1T 2RJ
Surface of Total Floors/sq ft	464	11678
Type	2 bed flat	office building
Vacancy Rate	Dropped to 16.6% YOY	-
Last Sold Value and Date	£658,500 in May 2017	-
Specialities	plan kitchen offering granite work surfaces	giant brass-framed box windows
Population	7.30%	7.30%
Transportation	underground stations being a short walk away	two-minute walk to Goode Street Station
Floor	second floor	from ground to the fifth floor
Refurbishment	Yes	Yes
Traditional Comparative Valuation of 44-46 Whitfield Street/£		17,898,196 =658500/B83*C83+1325000

Figure 4 - Direct Valuation Method in Three Bedroom Apartment, 3/4 29 College Street, Glasgow, G1 1QH

Property	1/4, 29 College Street, Glasgow G1 1QH	3/4 29 College Street
Type	Apartment	Three-bedroom luxury aptarme
Surface/sq m	108.00	113.00
Structure	Three bathrooms, two shower/bathrooms	Three bathrooms, two shower/
Zoopla Sold Price	276,055	
Average Value on College St.	274,506.00	
Required Rate of Return	2.70%	=B40+B42+B43-B41
Inflation Rate	2.70%	
After-tax Risk-adjusted Rate	2.87%	=B42+B43
NI Rate	0.47%	=(292000/B37)^(1/12)-1
CPI	2.40%	
Valuation of Property	320,868	=B37*(1+B39)^3/B35*C35+8C

Figure 5 - Investment Valuation Method in Appraisal of Unit 3B, 3 Watt Place, Blantyre, G72

0AG

Property	3 Watt Place, Blantyre
Type	Business Usage
NI Yield	6.30%
Surface/sq m	4,657.00
Last Sold Price	2,131,553
Full Repairing & Insuring Rent	176,045
Amt of £1	2.96 = (1+B19/100)^B20
PV of £1	0.34 = 1/B7
Amt of £1 pa	36.94 = ((1+B19/100)^B20-1)/(B19/100)
YP	12.49 = (1-(1/(1+B19/100)^B20))/(B19/100)
YP Dual Rate	10.90 = 1/((B19/100)+((B22/100)/((1+(B22/100))^(B20)-1)))
ASF	0.04 = (B22/100)/(((1+(B22/100))^B20)-1)
YP in Perp.	18.87 = 100/B19
YP of a Reversion to Perp.	13.14 = (100/B19)*1/((1+(B19/100))^(B21)))
YP of a Reversion to a Term of Year	8.70 = ((1-(1/(1+(B19/100))^(B20)))/(B19/100))*1/((1+(B19/100))^(B21)))
YP Dual Rate Deferred	7.59 = 1/((1+(B19/100))^(B21))*1/((B19/100)+((B22/100)/((1+(B22/100))^(B20)-1)))
YP Dual Rate(Tax)	9.79 = 1/((B19/100)+((B22/100)/((1+(B22/100))^(B20)-1)))*1/(1-(B23/100)))
YP Dual Rate(Tax) Deferred	6.82 = 1/((1+(B19/100))^(B21))*1/((B19/100)+((B22/100)/((1+(B22/100))^(B20)-1)))*1/(1-(B23/100)))
Interest Rate/%	5.30
Annual Rental Reviews	7
SF Rate/%	2.00
Corporate Tax/%	21.00
Valuation in December 2018	2,324,147 = \$B\$6*(B\$18)+\$B\$6/(B\$19/100)*\$B\$8

Figure 6 - Profit Valuation Calculation of Carlton George Hotel in 44-46 West George Street, Glasgow, G1 1DH

	Annual Earnings	845,000	
Fig	Heritable Interest	8.25%	
	Capitalization Rate	6.50%	
in I	NI Yield	6.36%	
	Valuation for Investment	18,221,488	=B38/(0.55*B40)*B41/B39
	Surface/sq ft	47,460	
	Status	Well renovated	
	FRI Rental Fee per SF	25	
	Area/ft²	49,750	
	Whole Office Rental Fee	1,243,750	=B48*B49
	Sold Price in Mar 2007	22,775,633	
	Net Market Rent (FRI)	1,243,750	
	Submarket 2-4 Star Rental Fee YOY	2.0%	
	After-tax Discount Rate (Risk-adjusted)	7% =B53+4.5%	
	Valuation via Investment Method	28,191,667	=B50*(1+B53)/(B54-B53)

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